UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ONE CONGRESS STREET, SUITE 1100 (CMA)
BOSTON, MASSACHUSETTS 02114 - 2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO THE WATERS OF THE UNITED STATES

NPDES PERMIT NO.: MA0005282

NAME AND ADDRESS OF APPLICANT:

Texon USA
P.O. Box 365
Russell, MA 01071

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Texon USA
1190 Huntington Road
Russell, MA 01071

RECEIVING WATER: Westfield River. Code 32 -WEST

CLASSIFICATION: B

I. Proposed Action, Type of Facility, and Discharge Location.

The above named applicant has applied to the U.S. Environmental Protection Agency for reissuance of the NPDES permit to discharge into the designated receiving waters. The facility is engaged in the manufacture of elastomeric saturated fiber (cellulose) materials. The discharge consists of treated process wastewater, floor drainage, boiler condensate and non-contact cooling water.

II. Description of Discharge.

A quantitative description of the discharge in terms of significant effluent parameters based on Discharge Monitor Reports (DMR) is shown on Attachment C.

III. Limitations and Conditions.

The effluent limitations, and monitoring requirements, are found in the draft permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation.

The Texon Paper Mill is engaged in the manufacture of a variety of non-woven papers including specialty impregnated papers for use in inner soles, suitcases, and safety equipment, and products used in the filtration and blotter markets. The waste water from the manufacturing process is treated and discharged through Outfall 001 to the Westfield River.

A. The Clean Water Act

(CWA) requires that discharges satisfy both minimum technology and water quality requirements. Technology based limits in include Best Practicable Control Technology (BPT), Best Available Technology Economically Achievable (BAT) for toxic pollutants and Best Conventional Pollutant Control Technology (BCT) for Conventional Pollutants as required in Section 301(b) (2) (A) and (E) of the Clean Water Act.

1. Technology Based Requirements

The technology-based effluent limitations for the Pulp, Paper, and Paperboard point source category are found at 40 CFR Part 430. The Texon USA Plant produces products codified under Subpart L § 430.120 - 122. This subcategory contains BPT, BCT, and BAT limitations for non-integrated mills producing discharges resulting from the production of Tissue papers, Filter, Non-woven, and Paperboard from Purchased Pulp Subcategory. This category includes facilities previously regulated under subcategories S, Y, and Z.

2. Water Quality Based Limitations

Under Section 301(b)(1)(C) of the Clean Water Act, discharges are subject to effluent limitations based on water quality standards. The Massachusetts Surface Water Quality Standards (314 CMR 4.00) include the requirements for the regulation and control of toxic constituents and also require the EPA criteria established pursuant to Section 304(a) of the CWA to be used unless site specific criteria are established. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. EPA may not issue a permit unless the Massachusetts Department of Environmental Protection (MADEP) certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate state water quality standards.

3. Antidegradation

In accordance with 40 CFR 131.12, the State has developed an anti-degradation policy to ensure that existing in-stream uses and water quality are maintained and protected. Limitations and

conditions in the permit must meet the requirements of the policy.

4. Antibacksliding

According to 40 CFR 122.44(l), when a permit is reissued, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued. This requirement is known as anti-backsliding.

The current permit authorizes the discharge of treated process waste water, floor drainage, boiler condensate and untreated non-contact cooling water. Treatment of process waste water from paper making, floor drainage and boiler condensate involves Polysdic filtration. The permit application requests authorization of the same discharges, but requests several increases in effluent limitations, which are described below in this fact sheet..

B. Permit Application

On July 24, 2003 the permitted submitted its application for renewal of its NPDES permit. In its application the permittee has requested the following increases to its effluent limitations:

- an increase of the monthly average biochemical oxygen demand (BOD) limit from 200 lbs per day to 375 lbs per day and an increase of the maximum daily BOD limits from 400lbs per day to 880 lbs per day.

- an increase of the monthly average total suspended solids (TSS) limits from 250 lbs per day to 375 lbs per day and the maximum daily limit TSS limit from 350lbs per day to 550 lbs per day.

- an increase of the monthly average flow limit 0.8 million gallons per day (MGD) to 1.2 MGD and an increase of the maximum daily limit from 1.3 MGD to 1.6 MGD.

The permittee also requested the elimination of the existing numeric zinc and ammonia limits, and the replacement of them with report-only requirements.

The company stated that the requested increases are due to increased production and the increased use of secondary fibers. Secondary and recycled fibers provides for the company a lower cost raw material and also reduces the mill's reliance on primary fibers and reduces dependancy on natural resources.

The company indicated that while there are many benefits associated with the increased use of the reliance of secondary and recycled fibers, it does result it in higher effluent BOD loadings. Secondary fiber sources may often include residual amount of filler, including starch based compounds that contribute to soluble BOD that cannot be removed by their polydisc treatment

unit.

Texon USA reported in the permit application that no major changes in the wastewater treatment equipment or processes of the treatment system has been made since the last permit was issued.

Texon USA believes that the requested increase of BOD and TSS loads are consistent with technology-based and water quality-based requirements. In support of this position, the permittee submitted calculations of limitations for BOD and TSS using categorical standards, and submitted model results showing the receiving water dissolved oxygen impacts of increased loads of BOD.

C. EPA and MADEP Permit Determination

EPA can only increase effluent limitations where such increases are consistent with technology-based effluent guidelines, water quality standards, antibacksliding requirements, and antidegradation requirements. EPA first reviewed the calculations and water quality information submitted by the company in its permit application and then considered whether the proposed increases were allowable under antibacksliding and antidegradation.

As mentioned previously, the effluent limitations guidelines for this discharge are found at 40 CFR 430.130 Subcategory L (the Texon discharge was previously covered under Subcategories Y (Filter and Non-woven) and Z (Paperboard), but in 1998 the sub-categorization scheme was revised and these subcategories were included in subcategory L). The limitations guidelines did not change, however. BPT and BCT limitations are shown below. BAT limits are not shown, since the only pollutants limited in the BAT guidelines, pentchlorophenol and trichlorophenol, are not used by the permittee, and their use has been prohibited in the draft permit.

BPT/BCT Limitations - Filter and Nonwoven

	lbs/1000 lbs of product	
	Maximum for any one day	Average of daily values for 30 consecutive days
BOD	16.3	29.6
TSS	13.0	26.6

BPT/BCT Limitations - Paperboard

	lbs/1000 lbs of product	
	Maximum for any one day	Average of daily values for 30 consecutive days
BOD	6.5	3.6
TSS	5.8	2.8

The permittee has forecasted a production rate of 8,000 metric tons per year of manufactured product for the next 5 years. 40 percent consisting of foot ware products and 60 percent as paperboard. Calculation of applicable technology-based limits are shown on Attachment B.

In its application the permittee has submitted a water quality analysis using a model to demonstrate that the requested increase in BOD limitations are protective of the environment and that there is a substantially greater assimilative capacity available in the river to sustain it. Texon developed a Streeter- Phelps analysis using DEP's kinetic coefficients and conservative assumptions for critical low stream flow, maximum wastewater discharge, temperature and upstream BOD, all occurring simultaneously. This theoretical model predicts that up to 2,230 lbs/day could be discharged without violating water quality standards for DO criteria in the Westfield River (5 mg/l minimum). At this BOD load the model does show a significant change in dissolved oxygen as compared to the current conditions (6.96 minimum). The company then ran the model at a effluent load of 500 lbs per day and their model showed a minimum DO downstream of the discharge of 6.69 mg/l.

The permittee also notes in its application that there has been a significant reduction in pollutant loads discharged into the Westfield River due to the elimination of discharges from other companies which have gone out of business or have upgraded the treatment systems, including the Huntington municipal facility POTW located downstream from Texon's discharge, which is discharging less BOD and TSS, and the Westfield River Paper Company and Strathmore Paper Mill, which are no longer discharging.

As discussed previously, a effluent limitations in NPDES permits are also subject to antibacksliding and antidegradation requirements. Antibacksliding requires that effluent limitations be at least as stringent as the previous permit except under certain specific circumstances, which include material and substantial alterations to the permitted facility, information which was not available at the time of permit issuance, technical mistakes or mistakes of interpretation of law, and events over which the permittee has no control and there is no reasonable remedy (see 40 CFR part 122.44(l)). The permittee believes that the proposed increases are allowable because the increased production and process changes at the facility are material and substantial alterations, and that the reduction of pollutant loads from other sources is new information which would support less stringent limits.

The MA Antidegradation policy, written to satisfy EPA requirements found at 40 CFR Section 131.12, prohibits new or increased discharges which would not maintain existing in-stream water uses and the level of water quality necessary to protect them, and also requires that where water quality exceeds the levels necessary to support propagation of fish, shellfish, wildlife, and recreation that quality shall be maintained and protected, unless necessary to accommodate important economic or social development. MADEP's antidegradation policy may be found at 314 CMR 4.04. MADEP has established antidegradation review procedures in a policy document titled <u>Antidegradation Review Procedure for Discharge Requiring a Permit Under 314 CMR 3.03</u>.

The MA anti-degradation review procedures allow for de minimum increases in discharges without the need for an anti-degradation variance; however the procedures require that the cumulative effect of repeated/multiple insignificant changes on water quality be considered. The permittee was granted an increase in its BOD and TSS discharges in the last permit issuance, so, according to the review procedures, the cumulative effect of that increase plus the newly proposed increase must be considered. In fact, the fact sheet for the 1999 permit stated that further loading increases in effluent limits were unlikely to be allowed, consistent with antidegradation provisions protecting against multiple changes to water quality, and that any further increased loadings should be offset by improved wastewater treatment.

The BOD and TSS limitations in the September 26, 1991 NPDES permit were:

BOD - monthly average -110 lbs/day
maximum day - 220 lbs/day

TSS - monthly average - 175 lbs/day
maximum day - 250 lbs/day

The limitations were increased in the November 12, 1999 permit to:

BOD - monthly average -200 lbs/day
maximum day - 400 lbs/day

TSS - monthly average - 250 lbs/day
maximum day - 350 lbs/day

The permittee has requested the following limits in the reissued permit

BOD - monthly average -375 lbs/day
maximum day - 880 lbs/day

TSS - monthly average - 330 lbs/day
maximum day - 550 lbs/day

The cumulative increase in loadings from the 1991 permit limits, based on the requested loadings are:

BOD - monthly average -265 lbs/day
maximum day - 660 lbs/day

TSS - monthly average - 155 lbs/day
maximum day - 300 lbs/day

Therefore, EPA and MADEP must judge whether the antidegradation policy has been met based

on the discharge increase from the 1991 permit to the current requested limits rather than from the 1999 permit. The Streeter Phelps analysis done by the permittee does not included this scenario. The permittee's estimate of D.O. reduction will be greater when you consider the cummulative increase in loadings.

Another factor which must be considered in antidegradation is whether the discharge meets or is expected to be in compliance with MADEP's " Implementation Policy for the Control of Toxics Pollutants in Surface Waters"and also whether individual toxics are present in concentrations that cause, or have the reasonable potential to cause or contribute to excursions of water quality criteria.

A review of whole effluent toxicity (WET) data submitted by the permittee shows periodic violations of the permit's acute WET limits, which were established in accordance with the MADEP toxics. A review of effluent data submitted by the company also shows concentrations of aluminum which have the reasonable potential to cause or contribute to violations of water quality standards even considering dilution; effluent concentrations of copper do not appear to be sufficiently high to cause excursions of water quality criteria after dilution, but the concentrations do appear sufficient high to contribute to the WET exceedances. Levels of copper and aluminum that individually would not be expected to have a toxic effect in the receiving water after complete mixing, might contribute to an unacceptable toxic effect in the whole effluent.

The draft permit does not authorize the requested increases in BOD, TSS or flow; due to the lack of demonstration, consistent with Antidegradation Review Procedures, that lowering water quality is necessary. If, following a comprehensive evaluation of alternatives for minimizing the lowering of water quality, including water use reduction and water reuse alternatives as well as treatment and discharge location alternatives, the agencies believe that the antidegradation requirements for lowering water quality have been met, the permit can be reopened and modified.

Temperature, Zinc and Ammonia

The temperature limit was retained consistent with water quality requirements for the receiving stream. Discharge monitoring data for zinc and ammonia shows that the effluent concentration of these pollutant have been well below the effluent limits for 8 years. Therefore, the zinc and ammonia limits have been deleted in the draft permit.

Total Nitrogen

It has been determined that excessive nitrogen loadings are causing significant water quality problems in Long Island Sound, including low dissolved oxygen. The State of Connecticut has begun to impose nitrogen limitations on Connecticut discharges to Long Island Sound and its tributaries. EPA believes there is a need to determine the loadings of nitrogen from sources in Massachusetts which are tributary to Long Island Sound, to determine whether these loadings are

impacting the water quality in Long Island Sound, and to help determine what limits, if any, should ultimately be imposed on discharges in Massachusetts, EPA has included once per month monitoring for ammonia, nitrite and nitrate, and TKN in the draft permit. The information submitted by the permittee will help to establish a database of nitrogen loadings, which can be used to quantitatively assess the impact of loading and transport of nitrogen to Long Island Sound. The data will provide a more sound decision making basis in the future decisions relating to nitrogen loadings to the Sound. No numerical limitations for these pollutants are established in the draft permit at this time.

Toxicity Testing and pH

The pH limits are based on receiving water quality and is required by state certification. Toxicity testing analyses have been maintained based on Water Quality Requirements for the receiving stream. The same limit has been retained and is based on dilution criteria derived from the 7Q10 flow of the receiving stream (32 cfs), and the existing average flow permitted in the previous permit of (1.24 cfs); the dilution factor in this case is equal to 26.8 considered under the strategy for a medium low risk category discharge, established by the Massachusetts Water Quality Standards Implementation Policy for the control of Toxic Pollutants in Surface Waters.

The remaining conditions of the permit are based on the NPDES regulations, Part 122 through 125 and consist primarily of management requirements common to all permits.

V. State Certification Requirements.

EPA may not issue a permit unless the Department of Environmental Protection with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the Department of Environmental Protection has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State and expects that the draft permit will be certified.

VI. Public Comment Period, Public Hearing, and Procedures for Final Decision

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection (CMA), One Congress Street Boston, Massachusetts 02114 -2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 40 CFR 124.74, 48 Fed. Reg. 14279-14280 (April 1, 1983).

VII. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Victor Alvarez
U.S. Environmental Protection Agency
MA Office of Ecosystem Protection (CMA)
1 Congress Street , Suite 1100.
Boston, MA 02114 -2023
Telephone: (617) 918-1572

04/10/2004	Linda M. Murphy, Director
Date	Office of Ecosystem Protection
	U.S. Environmental Protection Agency

ATTACHMENT B

TEXON USA
NPDES Permit No. MA0005292
Effluent Limitations Guidelines

		Non-Integrated Paperboard 430 CFR 430 Subpart L		Non-Integrated Filter and Non-Woven Papers 40 CFR 430 Subpart L		40% Filter and NonWoven 60% Paperboard	
		BOD lbs/1000 lbs	TSS lbs/1000lbs	BOD lbs/1000 lbs	TSS lbs/1000lbs	BOD lbs/1000 lbs	TSS lbs/1000lbs
Effluent Limitation	ave max	3.6 6.5	2.8 5.8	16.3 29.6	13 26.6	8.7 15.7	6.9 14.1
At Projected 5 year Production (8,000 metric tonnes/year)*	ave max	212 382	165 341	958 1740	764 1564	512 923	406 829
Existing Permit Limits based on water quality requirements	ave max	200 400	250 350				

Calculated limits based on operation 6 days per week, 50 weeks per year

ATTACHMENT C

MA0005282 TEXON USA- RUSSELL WESTFIELD RIVER

001A TREATED PROCESS WASTEWATER
TAA3B LC50 STAT 48HR ACU CERIODAPHN 100 DELMON DELMON P
DAILY MN WKLY AVG

01/31/00	02/16/00	E00	00	>100		01/90
CP						
03/31/00	04/17/00	E00	00	>100		04/YR
CP						
06/30/00	07/18/00	E00	00	100		04/YR
CP						
08/31/00	09/18/00	E00	00	100		04/YR
CP						
01/31/01	02/16/01	E90	01	79.4		
CP						
03/31/01	04/17/01	E90	01	46.6		04/YR
CP						
06/30/01	07/25/01	E90	01	88.5		04/YR
08/31/01	09/17/01	E00	00	>100		04/YR
CP						
01/31/02	02/19/02	E00	00	100		04/YR
CP						
03/31/02	04/06/02	E00	00	100		04/YR
CP						
06/30/02	07/17/02	E00	00	>100		04/YR
CP						
08/31/02	09/17/02	E00	00	>100		04/YR
CP						
01/31/03	02/19/03	E00	00	>100		04/YR
CP						
03/31/03	04/22/03	E90	01	60.0		
06/30/03	07/16/03	E00		>100		
08/31/03	09/16/03	E00	00	100		04/YR
CP						

TAA6C LC50 STAT 48HR ACU PIMEPHALES 100 DELMON DELMON
DAILY MN WKLY AVG 3

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      01/31/00      02/16/00  E00  00                    >100                                  01/90
CP
      03/31/00      04/17/00  E00  00                    >100                                  04/YR
CP
      06/30/00      07/18/00  E00  00                    100                                   04/YR
CP
      08/31/00      09/18/00  E00  00                    100                                   04/YR
CP
      01/31/01      02/16/01  E00  00                    100                                   04/YR
CP
      03/31/01      04/17/01  E90  01                    58.4                                  04/YR
CP
      06/30/01      07/25/01  E00  00                    100                                   04/YR
      08/31/01      09/17/01  E00  00                    >100                                  04/YR
CP
      01/31/02      02/19/02  E00  00                    100                                   04/YR
CP
      03/31/02      04/06/02  E00  00                    100                                   04/YR
CP
      06/30/02      07/17/02  E00  00                    >100                                  04/YR
CP
      08/31/02      09/17/02  E90  01                    87.1                                  04/YR
CP
      01/31/03      02/19/03  E00  00                    >100                                  04/YR
CP
      03/31/03      04/22/03  E00                        >100
      06/30/03      07/16/03  E00                        >100
      08/31/03      09/16/03  E00  00                    100                                   04/YR
CP

   TBP3B NOEL STATRE 7DAY CHR CERIODAP                  ADDMON   DELMON   DELMON
                                                      DAILY MN WKLY AVG          3
      01/31/00      02/16/00  E00  00                    50                                    01/90
CP
      03/31/00      04/17/00  E00  00                    50                                    04/YR
CP
      06/30/00      07/18/00  E00  00                    6.25                                  04/YR
CP
      08/31/00      09/18/00  E00  00                    12.5                                  04/YR
CP
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     01/31/01      02/16/01  E00  00                    6.25                                    04/YR
CP
     03/31/01      04/17/01  E00  00                    6.25                                    04/YR
CP
     06/30/01      07/25/01  E00  00                    12.5                                    04/YR
CP
     08/31/01      09/17/01  E00  00                    25                                      04/YR
CP
     01/31/02      02/19/02  E00  00                    12.5                                    04/YR
CP
     03/31/02      04/06/02  E00  00                    50                                      04/YR
CP
     06/30/02      07/17/02  E00  00                    6.25                                    04/YR
CP
     08/31/02      09/17/02  E00  00                    50                                      04/YR
CP
     01/31/03      02/19/03  E00  00                    12.5                                    04/YR
CP
     03/31/03      04/22/03  E00                        <6.25
     06/30/03      07/16/03  E00                        25
     08/31/03      09/16/03  E00  00                    50                                      04/YR
CP

 TBP6C NOEL STATRE 7DAY CHR PIMEPHAL                 ADDMON   DELMON   DELMON
                                                    DAILY MN WKLY AVG
     01/31/00      02/16/00  E00  00                    100                                     01/90
CP
     03/31/00      04/17/00  E00  00                    25                                      04/YR
CP
     06/30/00      07/18/00  E00  00                    50                                      04/YR
CP
     08/31/00      09/18/00  E00  00                    25                                      04/YR
CP
     01/31/01      02/16/01  E00  00                    25                                      04/YR
CP
     03/31/01      04/17/01  E00  00                    50                                      04/YR
CP
     06/30/01      07/25/01  E00  00                    25                                      04/YR
CP
     08/31/01      09/17/01  E00  00                    25                                      04/YR
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CP
     01/31/02      02/19/02  E00  00                    50                                    04/YR
CP
     03/31/02      04/06/02  E00  00                    100                                   04/YR
CP
     06/30/02      07/17/02  E00  00                    6.25                                  04/YR
CP
     08/31/02      09/17/02  E00  00                    50                                    04/YR
CP
     01/31/03      02/19/03  E00  00                    100                                   04/YR
CP
     03/31/03      04/22/03  E00                        <6.25
     06/30/03      07/16/03  E00                        12.5
     08/31/03      09/16/03  E00  00                    50                                    04/YR
CP

   00011 TEMPERATURE, WATER  DEG. FAHR                DELMON   ADDMON   90
                                                          MO AVG   DAILY MX  3
     12/31/01      01/10/02  E00  00                          73       82                    01/01
GR
     01/31/00      02/16/00  E00  00                          69       89                    01/01
GR
     02/29/00      03/13/00  E00  00                          64.6     81                    01/01
GR
     03/31/00      04/17/00  E00  00                          69       76                    01/01
GR
     04/30/00      05/15/00  E00  00                          69.4     81                    01/01
GR
     05/31/00      06/14/00  E00  00                          73.2     82                    01/01
GR
     06/30/00      07/18/00  E00  00                          75       82                    01/01
GR
     07/31/00 C    08/10/00  E00
     08/31/00      09/18/00  E00  00                          78       85                    01/01
GR
     09/30/00      10/16/00  E00  00                          77.7     86                    01/01
GR
     10/31/00      11/13/00  E00  00                          74       79                    01/01
GR
     11/30/00      12/18/00  E00  00                          70.9     79                    01/01
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GR	12/31/00	01/22/01	E00	00	69	79		01/01
GR	01/31/01	02/16/01	E00	00	64	75		01/01
GR	02/28/01	03/15/01	E00	00	67.783	74		01/01
GR	03/31/01	04/17/01	E00	00	66.042	78		01/01
GR	04/30/01	05/11/01	E00	00	71.227	79		01/01
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GR	09/30/01	10/16/01	E00	00	79	86		01/01
GR	10/31/01	11/15/01	E00	00	77.277	90		01/01
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GR	02/28/02	03/15/02	E00	00	67	77		01/01
GR	03/31/02	04/06/02	E00	00	69.97	77		01/01
GR	04/30/02	05/16/02	E00	00	73.864	84		01/01
GR	05/31/02	06/14/02	E00	00	75	81		01/01
GR	06/30/02	07/17/02	E00	00	81	88		01/01
GR	07/31/02	08/19/02	E00	00	81	86		01/01
GR	08/31/02	09/17/02	E00	00	81.76	88		01/01

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GR
     09/30/02      10/17/02  E00  00                                  81       86                        01/01
GR
     10/31/02      11/18/02  E00  00                                  73.9     82                        01/01
GR
     11/30/02      12/14/02  E00  00                                  69.6     80                        01/01
GR
     12/31/02      01/06/03  E00                                      64       73
     01/31/03      02/19/03  E00  00                                  66       72                        01/01
GR
     02/28/03      03/17/03  E00                                      66       73
     03/31/03      04/22/03  E00                                      64       73
     04/30/03      05/15/03  E00                                      68.5     76
     05/31/03      06/13/03  E00  00                                  73       78                        01/01
GR
     06/30/03      07/16/03  E00                                      76.9     87
     07/31/03      08/18/03  E00  00                                  85       88                        01/01
GR
     08/31/03      09/16/03  E00  00                                  83       87                        01/01
GR
     09/30/03      10/20/03  E00  00                                  78.6     83                        01/01
GR
     10/31/03      11/10/03  E00  00                                  70       78                        01/01
GR
     11/30/03      12/19/03  E00  00                                  72       82                        01/01
GR

  00310 BOD, 5-DAY              (20 D 200      400      26   DELMON   DELMON   DELMON
          MO AVG   DAILY MX
     12/31/01      01/10/02  E00  00    114.894  342.942                                                 03/07
CP
     01/31/00      02/16/00  E00  00    98.081   175.949                                                 03/07
CP
     02/29/00      03/13/00  E00  00    115.018  288.543                                                 03/07
CP
     03/31/00      04/17/00  E00  00    99.481   250.670                                                 03/07
CP
     04/30/00      05/15/00  E90  00    58840    105790                                                  03/07
CP
     05/31/00      06/14/00  E00  00    122.416  308.387                                                 03/07
```

```
CP
     06/30/00      07/18/00  E00  00    100.742  160.745                                                    03/07
CP
     07/31/00 C    08/10/00  E00
     08/31/00      09/18/00  E00  00    110.891  207.436                                                    03/07
CP
     09/30/00      10/16/00  E00  00    143.863  244.059                                                    03/07
CP
     10/31/00      11/13/00  E00  00    139.083  231.342                                                    03/07
CP
     11/30/00      12/18/00  E00  00    141.007  265.702                                                    03/07
CP
     12/31/00      01/22/01  E00  00    130.724  214.033                                                    03/07
CP
     01/31/01      02/16/01  E90  00    137540   297.329                                                    03/07
CP
     02/28/01      03/15/01  E00  00    137.871  324.740                                                    03/07
CP
     03/31/01      04/17/01  E00  00    112.157  255.881                                                    03/07
CP
     04/30/01      05/11/01  E00  00    142.777  244.195                                                    03/07
CP
     05/31/01      06/18/01  E00  00    150.988  329.694                                                    03/07
CP
     06/30/01      07/25/01  E00  00    187.794  380.854                                                    03/07
CP
     07/31/01      08/14/01  E00  00    131.379  174.780                                                    03/07
CP
     08/31/01      09/17/01  E00  00    142.036  263.786                                                    03/07
CP
     09/30/01      10/16/01  E00  00    156.936  230.852                                                    03/07
CP
     10/31/01      11/15/01  E00  00    163.611  365.976                                                    03/07
CP
     11/30/01      12/19/01  E90  02    215.527  481.060                                                    03/07
CP
     01/31/02      02/19/02  E00  00    185.467  298.529                                                    03/07
CP
     02/28/02      03/15/02  E00  00    153.976  259.884                                                    03/07
CP
```

03/31/02	04/06/02	E00	00	175.516	348.487		02/07
CP							
04/30/02	05/16/02	E90	01	230.145	350.680		03/07
CP							
05/31/02	06/14/02	E90	01	206.954	315.755		03/07
CP							
06/30/02	07/17/02	E00	00	149.794	320.465		03/07
CP							
07/31/02	08/19/02	E90	02	252.389	424.192		03/07
CP							
08/31/02	09/17/02	E00	00	164.824	362.503		03/07
CP							
09/30/02	10/17/02	E90	02	266.487	475.658		03/07
CP							
10/31/02	11/18/02	E90	02	269.258	469.175		03/07
CP							
11/30/02	12/14/02	E00	00	150.709	237.962		03/07
CP							
12/31/02	01/06/03	E00		181.806	236.466		
01/31/03	02/19/03	E00	00	182.806	364.747		03/07
CP							
02/28/03	03/17/03	E00		161.185	244.195		
03/31/03	04/22/03	E90	02	248.621	423.360		
04/30/03	05/15/03	E90	02	234.255	633.206		
05/31/03	06/13/03	E00	00	109.335	187.003		03/07
CP							
06/30/03	07/16/03	E00		138.826	205.997		
07/31/03	08/18/03	E90	01	181.687	415.282		03/07
CP							
08/31/03	09/16/03	E90	02	237.692	570.996		03/07
CP							
09/30/03	10/20/03	E00	00	187.079	314.413		03/07
CP							
10/31/03	11/10/03	E00	00	163.674	320.516		03/07
CP							
11/30/03	12/19/03	E00	00	143.3	277.6		03/07
CP							

00400 PH	6.5	8.3
	MINIMUM	MAXIMUM

	12/31/01	01/10/02	E00	00	6.9	8.3	01/01	GR
	01/31/00	02/16/00	E00	00	6.6	7.9	01/01	GR
	02/29/00	03/13/00	E00	00	6.6	7.9	01/01	GR
	03/31/00	04/17/00	E00	00	7.3	8.2	01/01	GR
	04/30/00	05/15/00	E00	00	7.0	8.0	01/01	GR
	05/31/00	06/14/00	E00	00	6.6	7.8	01/01	GR
	06/30/00	07/18/00	E00	00	6.5	8.2	01/01	GR
	07/31/00 C	08/10/00	E00					
	08/31/00	09/18/00	E00	00	6.8	8.3	01/01	GR
	09/30/00	10/16/00	E00	00	6.6	8.1	01/01	GR
	10/31/00	11/13/00	E00	00	6.5	8.2	01/01	GR
	11/30/00	12/18/00	E00	00	6.5	8.1	01/01	GR
	12/31/00	01/22/01	E00	00	6.5	8.2	01/01	GR
	01/31/01	02/16/01	E00	00	6.5	8.2	01/01	GR
	02/28/01	03/15/01	E00	00	7.2	8.1	01/01	GR
	03/31/01	04/17/01	E00	00	6.9	7.9	01/01	GR
	04/30/01	05/11/01	E00	00	7.0	8.1	01/01	GR
	05/31/01	06/18/01	E00	00	7.4	8.1	01/01	GR
	06/30/01	07/25/01	E00	00	6.8	8.3	01/01	GR
	07/31/01	08/14/01	E00	00	6.8	8.3	01/01	GR
	08/31/01	09/17/01	E00	00	7.0	8.3	01/01	

GR							
	09/30/01	10/16/01	E00	00	7.2	7.9	01/01
GR							
	10/31/01	11/15/01	E00	00	7.4	8.2	01/01
GR							
	11/30/01	12/19/01	E00	00	7.7	8.0	01/01
GR							
	01/31/02	02/19/02	E00	00	7.1	8.3	01/01
GR							
	02/28/02	03/15/02	E00	00	6.9	8.1	01/01
GR							
	03/31/02	04/06/02	E00	00	6.6	8.3	01/01
GR							
	04/30/02	05/16/02	E00	00	6.5	8.2	01/01
GR							
	05/31/02	06/14/02	E00	00	6.7	8.2	01/01
GR							
	06/30/02	07/17/02	E00	00	6.7	8.2	01/01
GR							
	07/31/02	08/19/02	E00	00	6.9	7.9	01/01
GR							
	08/31/02	09/17/02	E00	00	6.5	8.1	01/01
GR							
	09/30/02	10/17/02	E00	00	6.8	8.0	01/01
GR							
	10/31/02	11/18/02	E00	00	6.5	7.5	01/01
GR							
	11/30/02	12/14/02	E00	00	6.9	8.2	01/01
GR							
	12/31/02	01/06/03	E00		6.5	7.3	
	01/31/03	02/19/03	E00	00	6.5	8.3	01/01
GR							
	02/28/03	03/17/03	E00		6.8	8.3	
	03/31/03	04/22/03	E00		7.0	8.3	
	04/30/03	05/15/03	E00		6.8	8.0	
	05/31/03	06/13/03	E00	00	6.5	7.8	01/01
GR							
	06/30/03	07/16/03	E00		6.6	8.0	
	07/31/03	08/18/03	E00	00	6.5	7.8	01/01
GR							

08/31/03 09/16/03 E00 00 6.7 8.0 01/01
GR
09/30/03 10/20/03 E00 00 6.7 7.9 01/01
GR
10/31/03 11/10/03 E00 00 6.5 8.3 01/01
GR
11/30/03 12/19/03 E00 00 6.5 8.2 00530 SOLIDS,TOTAL
SUSPENDED 250 350 26 DELMON DELMON DELMON MO AVG DAILY
MX
12/31/01 01/10/02 E00 00 59.469 124.933 03/07
CP
01/31/00 02/16/00 E00 00 69.059 199.835 03/07
CP
02/29/00 03/13/00 E00 00 60.229 125.700 03/07
CP
03/31/00 04/17/00 E00 00 46.701 98.821 03/07
CP
04/30/00 05/15/00 E00 00 63.028 191.153 03/07
CP
05/31/00 06/14/00 E00 00 65.658 135.775 03/07
CP
06/30/00 07/18/00 E00 00 119.247 235.588 03/07
CP
07/31/00 C 08/10/00 E00
08/31/00 09/18/00 E00 00 65.606 131.147 03/07
CP
09/30/00 10/16/00 E00 00 115.710 304.243 03/07
CP
10/31/00 11/13/00 E00 00 83.607 195.544 03/07
CP
11/30/00 12/18/00 E00 00 123.361 341.523 03/07
CP
12/31/00 01/22/01 E00 00 125.815 228.558 03/07
CP
01/31/01 02/16/01 E00 00 99.908 292.317 03/07
CP
02/28/01 03/15/01 E00 00 64.192 168.134 03/07
CP
03/31/01 04/17/01 E00 00 81.567 165.966 03/07
CP

	04/30/01	05/11/01	E00	00	117.278	171.462	03/07
CP							
	05/31/01	06/18/01	E00	00	98.473	233.653	03/07
CP							
	06/30/01	07/25/01	E90	01	160.649	435.348	03/07
CP							
	07/31/01	08/14/01	E00	00	179.285	244.395	03/07
CP							
	08/31/01	09/17/01	E00	00	159.633	311.082	03/07
CP							
	09/30/01	10/16/01	E00	00	99.470	218.633	03/07
CP							
	10/31/01	11/15/01	E00	00	107.615	154.123	03/07
CP							
	11/30/01	12/19/01	E00	00	106.411	213.170	03/07
CP							
	01/31/02	02/19/02	E00	00	83.214	164.090	03/07
CP							
	02/28/02	03/15/02	E00	00	87.073	151.121	03/07
CP							
	03/31/02	04/06/02	E00	00	97.137	156.792	03/07
CP							
	04/30/02	05/16/02	E90	01	120.972	390.312	03/07
CP							
	05/31/02	06/14/02	E00	00	78.152	125.434	03/07
CP							
	06/30/02	07/17/02	E00	00	92.292	188.901	03/07
CP							
	07/31/02	08/19/02	E00	00	92.433	206.165	03/07
CP							
	08/31/02	09/17/02	E00	00	89.171	253.369	03/07
CP							
	09/30/02	10/17/02	E00	00	92.938	135.317	03/07
CP							
	10/31/02	11/18/02	E00	00	100.948	214.938	03/07
CP							
	11/30/02	12/14/02	E00	00	108.049	170.970	03/07
CP							
	12/31/02	01/06/03	E00		140.001	188.276	
	01/31/03	02/19/03	E00	00	108.725	300.657	03/07

```
CP
     02/28/03      03/17/03  E00        120.225  174.640
     03/31/03      04/22/03  E00        144.039  269.215
     04/30/03      05/15/03  E90  01    154.412  423.255
     05/31/03      06/13/03  E00        113.452  210.543
     06/30/03      07/16/03  E00        160.079  306.495
     07/31/03      08/18/03  E00  00    110.436  144.449                                                    03/07
CP
     08/31/03      09/16/03  E00  00    131.136  237.899                                                    02/07
CP
     09/30/03      10/20/03  E00  00    124.113  323.258                                                    03/07
CP
     10/31/03      11/10/03  E00  00    136.029  272.468                                                    03/07
CP
     11/30/03      12/19/03  E00  00    120.4    215.2                                                      03/07
CP

   00610 NITROGEN, AMMONIA   TOTAL (AS                        DELMON   DELMON   10.8
                                                                        DAILY MX
     12/31/01      01/10/02  E00  00                                          1.01                          01/07
CP

     01/31/00      02/16/00  E00  00                                          2.6                           01/07
CP
     02/29/00      03/13/00  E00  00                                          1.91                          01/07
CP
     03/31/00      04/17/00  E00  00                                          1.3                           01/07
CP
     04/30/00      05/15/00  E00  00                                          1.55                          01/07
CP
     05/31/00      06/14/00  E00  00                                          2.05                          01/07
CP
     06/30/00      07/18/00  E00  00                                          1.7                           01/07
CP
     07/31/00 C    08/10/00  E00
     08/31/00      09/18/00  E00  00                                          1.73                          01/07
CP
     09/30/00      10/16/00  E00  00                                          1.06                          01/07
CP
     10/31/00      11/13/00  E00  00                                          1.38                          01/07
```

CP						
	11/30/00	12/18/00	E00	00	1.50	01/07
CP						
	12/31/00	01/22/01	E00	00	1.39	01/07
CP						
	01/31/01	02/16/01	E00	00	0.96	01/07
CP						
	02/28/01	03/15/01	E00	00	1.64	01/07
CP						
	03/31/01	04/17/01	E00	00	1.62	01/07
CP						
	04/30/01	05/11/01	E00	00	1.16	01/07
CP						
	05/31/01	06/18/01	E00	00	1.05	01/07
CP						
	06/30/01	07/25/01	E00	00	0.97	01/07
CP						
	07/31/01	08/14/01	E00	00	0.81	01/07
CP						
	08/31/01	09/17/01	E00	00	1.14	01/07
CP						
	09/30/01	10/16/01	E00	00	1.00	01/07
CP						
	10/31/01	11/15/01	E00	00	0.87	01/07
CP						
	11/30/01	12/19/01	E00	00	0.94	01/07
CP						
	01/31/02	02/19/02	E00	00	1.540	01/07
CP						
	02/28/02	03/15/02	E00	00	1.68	01/07
CP						
	03/31/02	04/06/02	E00	00	1.26	01/07
CP						
	04/30/02	05/16/02	E00	00	0.990	01/07
CP						
	05/31/02	06/14/02	E00	00	1.36	01/07
CP						
	06/30/02	07/17/02	E00	00	3.82	01/07
CP						
	07/31/02	08/19/02	E00	00	0.63	01/07

```
CP
      08/31/02      09/17/02  E00  00                                    1.25                    01/07
CP
      09/30/02      10/17/02  E00  00                                    1.26                    01/07
CP
      10/31/02      11/18/02  E00  00                                    2.42                    01/07
CP
      11/30/02      12/14/02  E00  00                                    1.46                    01/07
CP
      12/31/02      01/06/03  E00                                        0.54
      01/31/03      02/19/03  E00  00                                    0.62                    01/07
CP
      02/28/03      03/17/03  E00                                        0.900
      03/31/03      04/22/03  E90                                        067
      04/30/03      05/15/03  E00                                        0.97
      05/31/03      06/13/03  E00  00                                    0.830                   01/07
CP
      06/30/03      07/16/03  E00                                        1.45
      07/31/03      08/18/03  E00  00                                    1.02                    01/07
CP
      08/31/03      09/16/03  E00  00                                    0.92                    01/07
CP
      09/30/03      10/20/03  E00  00                                    0.59                    01/07
CP
      10/31/03      11/10/03  E00  00                                    0.83                    01/07
CP
      11/30/03      12/19/03  E00  00                                    0.97                    01/07
CP

  01092 ZINC, TOTAL          (AS ZN)                    DELMON   DELMON   0.62
                                                                   DAILY MX
      12/31/01      01/10/02  E00  00                                    0.031                   01/30
CP
      01/31/00      02/16/00  E00  00                                    0.030                   01/30
CP
      02/29/00      03/13/00  E00  00                                    0.069                   01/30
CP
      03/31/00      04/17/00  E00  00                                    0.016                   01/30
CP
      04/30/00      05/15/00  E00  00                                    0.036                   01/30
```

CP
05/31/00 06/14/00 E00 00 0.036 01/30
CP
06/30/00 07/18/00 E00 00 0.017 01/30
CP
07/31/00 C 08/10/00 E00
08/31/00 09/18/00 E00 00 0.028 01/30
CP
09/30/00 10/16/00 E00 00 0.025 01/30
CP
10/31/00 11/13/00 E00 00 0.023 11/30/00
12/18/00 E00 00 0.014 12/31/00 01/22/01 E00 00
0.017 01/31/01 02/16/01 E00 00
0.008 02/28/01 03/15/01 E00 00 0.014 03/31/01
04/17/01 E00 00 0.032 04/30/01 05/11/01 E00 00
0.030 05/31/01 06/18/01 E00 00
0.028 06/30/01 07/25/01 E00 00 0.017
07/31/01 08/14/01 E00 00 0.028 08/31/01 09/17/01 E00
00 0.049 09/30/01 10/16/01 E00 00
0.097 10/31/01 11/15/01 E00 00 0.018
11/30/01 12/19/01 E00 00 0.014 01/31/02 02/19/02
E00 00 0.040 02/28/02 03/15/02 E00 00
0.040 03/31/02 04/06/02 E00 00
0.062 04/30/02 05/16/02 E00 00 0.025 05/31/02
06/14/02 E00 00 0.032 06/30/02 07/17/02 E00 00
0.022 07/31/02 08/19/02 E00 00
0.044 08/31/02 09/17/02 E00 00 0.066 09/30/02
10/17/02 E00 00 0.027 10/31/02 11/18/02 E00 00
0.046 11/30/02 12/14/02 E00 00
0.045 12/31/02 01/06/03 E00 0.045
01/31/03 02/19/03 E00 00 0.023 02/28/03
03/17/03 E00 0.125
03/31/03 04/22/03 E00 0.013
04/30/03 05/15/03 E00 0.034
05/31/03 06/13/03 E00 00 0.017 06/30/03
07/16/03 E00 0.014
08/31/03 09/16/03 E00 00 0.019 07/31/03 E
08/18/03 E00
09/30/03 10/20/03 E00 00 0.067 10/31/03
11/10/03 E00 00 0.057 11/30/03 12/19/03 E00 00

```
                                  0.035
   50050 FLOW, IN CONDUIT OR THRU TREA 0.8      1.3      03
            MO AVG   DAILY MX                                    12/31/01      01/10/02  E00  00    0.549    0.749
                                                  99/99 MT
      01/31/00      02/16/00  E00  00    0.553    0.765                                                    99/99
CT
      02/29/00      03/13/00  E00  00    0.654    0.934                                                    99/99
CN
      03/31/00      04/17/00  E00  00    0.652    0.903                                                    99/99
MT
      04/30/00      05/15/00  E00  00    0.562    0.827                                                    99/99
CN
      05/31/00      06/14/00  E00  00    0.557    0.852                                                    99/99
CN
      06/30/00      07/18/00  E00  00    0.698    1.018                                                    99/99
CN
      07/31/00 C    08/10/00  E00
      08/31/00      09/18/00  E00  00    0.724    0.940                                                    99/99
MT
      09/30/00      10/16/00  E00  00    0.715    1.015                                                    99/99
CN
      10/31/00      11/13/00  E00  00    0.664    0.902                                                    99/99
MT
      11/30/00      12/18/00  E00  00    0.694    0.910                                                    99/99
MT
      12/31/00      01/22/01  E00  00    0.660    0.843                                                    99/99
MT
      01/31/01      02/16/01  E00  00    0.605    0.770                                                    99/99
CN
      02/28/01      03/15/01  E00  00    0.693    1.152                                                    99/99
MT
      03/31/01      04/17/01  E00  00    0.701    0.910                                                    99/99
MT
      04/30/01      05/11/01  E00  00    0.796    0.979                                                    99/99
MT
      05/31/01      06/18/01  E90  01    0.861    1.101                                                    99/99
MT
      06/30/01      07/25/01  E90  01    0.934    1.180                                                    99/99
MT
      07/31/01      08/14/01  E00  00    0.777    1.04                                                     99/99
```

MT							
	08/31/01	09/17/01	E00	00	0.740	1.05	99/99
MT							
	09/30/01	10/16/01	E00	00	0.660	0.889	99/99
MT							
	10/31/01	11/15/01	E00	00	0.695	1.001	99/99
MT							
	11/30/01	12/19/01	E00	00	0.609	0.771	99/99
MT							
	01/31/02	02/19/02	E00	00	0.593	0.795	99/99
MT							
	02/28/02	03/15/02	E00	00	0.643	0.906	99/99
MT							
	03/31/02	04/06/02	E00	00	0.684	0.866	99/99
MT							
	04/30/02	05/16/02	E00	00	0.706	1.040	99/99
MT							
	05/31/02	06/14/02	E00	00	0.688	0.867	99/99
MT							
	06/30/02	07/17/02	E90	01	0.825	1.202	99/99
MT							
	07/31/02	08/19/02	E00	00	0.767	0.989	99/99
MT							
	08/31/02	09/17/02	E00	00	0.725	0.895	99/99
MT							
	09/30/02	10/17/02	E00	00	0.734	0.938	99/99
MT							
	10/31/02	11/18/02	E00	00	0.746	0.879	99/99
MT							
	11/30/02	12/14/02	E00	00	0.760	0.951	99/99
MT							
	12/31/02	01/06/03	E00		0.785	0.971	
	01/31/03	02/19/03	E00	00	0.797	0.965	99/99
MT							
	02/28/03	03/17/03	E00		0.784	0.974	
	03/31/03	04/22/03	E00		0.728	0.977	
	04/30/03	05/15/03	E00		0.789	1.065	
	05/31/03	06/13/03	E00	00	0.711	0.906	99/99
MT							
	06/30/03	07/16/03	E00		0.788	1.050	

	07/31/03	08/18/03	E90	01	0.851	1.10		99/99
MT								
	08/31/03	09/16/03	E00	00	0.760	0.961		99/99
MT								
	09/30/03	10/20/03	E00	00	0.640	0.822		99/99
MT								
	10/31/03	11/10/03	E00	00	0.597	0.731		99/99
MT								
	11/30/03	12/19/03	E00	00	0.665	0.883		99/99
MT								