

The Export of Nutrients  
from Surface Coal Mines

by

K.D. Ferguson and S.M Leask

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ENVIRONMENT CANADA  
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PACIFIC AND YUKON REGION  
WEST VANCOUVER, BRITISH COLUMBIA

THE EXPORT OF NUTRIENTS  
FROM SURFACE COAL MINES  
APPENDICES

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1 APPENDICES INTRODUCTION

This appendix report contains the complete data base and additional graphs used in the study of nitrogen and phosphorus releases from coal mines in the Kootenay coal fields of British Columbia as described in the main report "The Export of Nutrients from Surface Coal Mines". The appendix includes a section (Appendix I) on rock and coal production data for all the mines in the Kootenay coal fields and individual sections (Appendix II to VI) describe the nutrient data base for each of the five mines (Byron Creek Collieries, Westar-Greenhills, Fording Coal, Crows Nest Resources-Line Creek, and Westar-Balmer). Inorganic nitrogen loading graphs were used to calculate (by planimeter) the annual inorganic nitrogen load in effluents and receiving waters discussed in the main report. Data plotted are from the respective coal companies unless otherwise noted.

LIST OF ABBREVIATIONS

|     |                                                   |
|-----|---------------------------------------------------|
| BCC | Byron Creek Collieries Limited                    |
| EP  | Environmental Protection (Environment Canada)     |
| FCL | Fording Coal Limited                              |
| LCM | Line Creek Mine - Crows Nest Resources Limited    |
| WMB | Waste Management Branch (Ministry of Environment) |
| WML | Westar Mining Limited                             |
|     |                                                   |
| NS  | Not Significant                                   |
| E   | Estimated                                         |
| *   | (NO <sup>3</sup> + NO <sup>2</sup> )              |
| ND  | non-detectable                                    |
| AV  | average                                           |

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APPENDIX I

1980-85 ROCK AND COAL PRODUCTION  
AND EXPLOSIVE USE DATA

- ROCK AND COAL PRODUCTION
- EXPLOSIVE USE

**TABLE 1 ANNUAL ROCK AND COAL PRODUCTION DATA FOR THE COAL MINES IN SOUTHEASTERN BRITISH COLUMBIA**

|                                             | ROCK QUANTITY (BCM x 10 <sup>6</sup> ) |       |       |       |       |       | COAL QUANTITY (MT x 10 <sup>6</sup> ) |        |        |        |        |        |
|---------------------------------------------|----------------------------------------|-------|-------|-------|-------|-------|---------------------------------------|--------|--------|--------|--------|--------|
|                                             | 1980                                   | 1981  | 1982  | 1983  | 1984  | 1985  | 1980                                  | 1981   | 1982   | 1983   | 1984   | 1985   |
| Westar Mining Ltd.<br>Balmer Operations     | 29.34                                  | 34.71 | 34.46 | 18.23 | 19.53 | 28.80 | 5.77                                  | 7.65   | 6.41   | 5.68   | 6.53   | 8.83   |
| Westar Mining Ltd.<br>Greenhills Operations | --                                     | --    | 5.78  | 7.16  | 8.46  | 16.29 | --                                    | --     | 0.67   | 1.26   | 2.97   | 3.88   |
| Fording Coal Ltd.                           | 17.03                                  | 21.62 | 28.34 | 24.36 | 34.79 | 33.79 | 5.572                                 | 5.825  | 6.262  | 4.229  | 6.306  | 6.107  |
| Crows Nest Resources<br>Line Creek Mine     | --                                     | 1.62  | 7.70  | 10.76 | 14.45 | 13.39 | --                                    | 0.082  | 1.39   | 2.04   | 2.71   | 2.78   |
| Byron Creek Collieries                      | 0.89                                   | 0.42  | 1.96  | 2.79  | 2.77  | 3.68  | 0.90                                  | 0.45   | 1.03   | 1.02   | 1.34   | 1.05   |
| TOTALS                                      | 47.26                                  | 58.37 | 78.24 | 63.3  | 80.   | 95.95 | 12.242                                | 14.007 | 15.762 | 14.229 | 19.856 | 22.641 |

TABLE 2

## ANNUAL EXPLOSIVES USE FOR THE COAL MINES IN SOUTHEASTERN BRITISH COLUMBIA

|                                             | ANFO (kg)  |            |            |           |           |            | SLURRY (kg) |            |           |           |           |           |
|---------------------------------------------|------------|------------|------------|-----------|-----------|------------|-------------|------------|-----------|-----------|-----------|-----------|
|                                             | 1980       | 1981       | 1982       | 1983      | 1984      | 1985       | 1980        | 1981       | 1982      | 1983      | 1984      | 1985      |
| Westar Mining Ltd.<br>Balmer Operations     | 14,302,434 | 16,747,214 | 15,559,362 | 8,271,871 | 7,809,563 | 5,501,801  | 1,395,319   | 3,468,316  | 1,725,648 | 2,431,138 | 2,775,881 | 1,699,164 |
| Westar Mining Ltd.<br>Greenhills Operations | --         | --         | 2,696,500  | 3,400,100 | 3,232,900 | 7,910,000  | --          | --         | --        | --        | 3,200     | 100,000   |
| Fording Coal Ltd.                           | 4,471,500  | 3,761,810  | 5,994,630  | 6,807,200 | 9,333,820 | 10,106,250 | 13,102,850  | 11,468,190 | 9,495,370 | 3,912,800 | 6,406,180 | 3,643,750 |
| Crows Nest Resources<br>Line Creek Mine     | --         | 500,000    | 3,407,688  | 4,628,090 | 7,080,010 | 6,159,860  | --          | N.S.       | N.S.      | N.S.      | N.S.      | N.S.      |
| Byron Creek Collieries                      | 562,400    | 196,360    | 1,270,000  | 1,377,000 | 1,241,000 | 1,681,000  | 35,700      | 330        | 2,300     | 20,700    | 4,300     | 10,600    |

N.S. = Not Significant

APPENDIX II

BYRON CREEK COLLIERIES NUTRIENT DATA

- INORGANIC NITROGEN LOADING GRAPHS
- NUTRIENT DATA SET

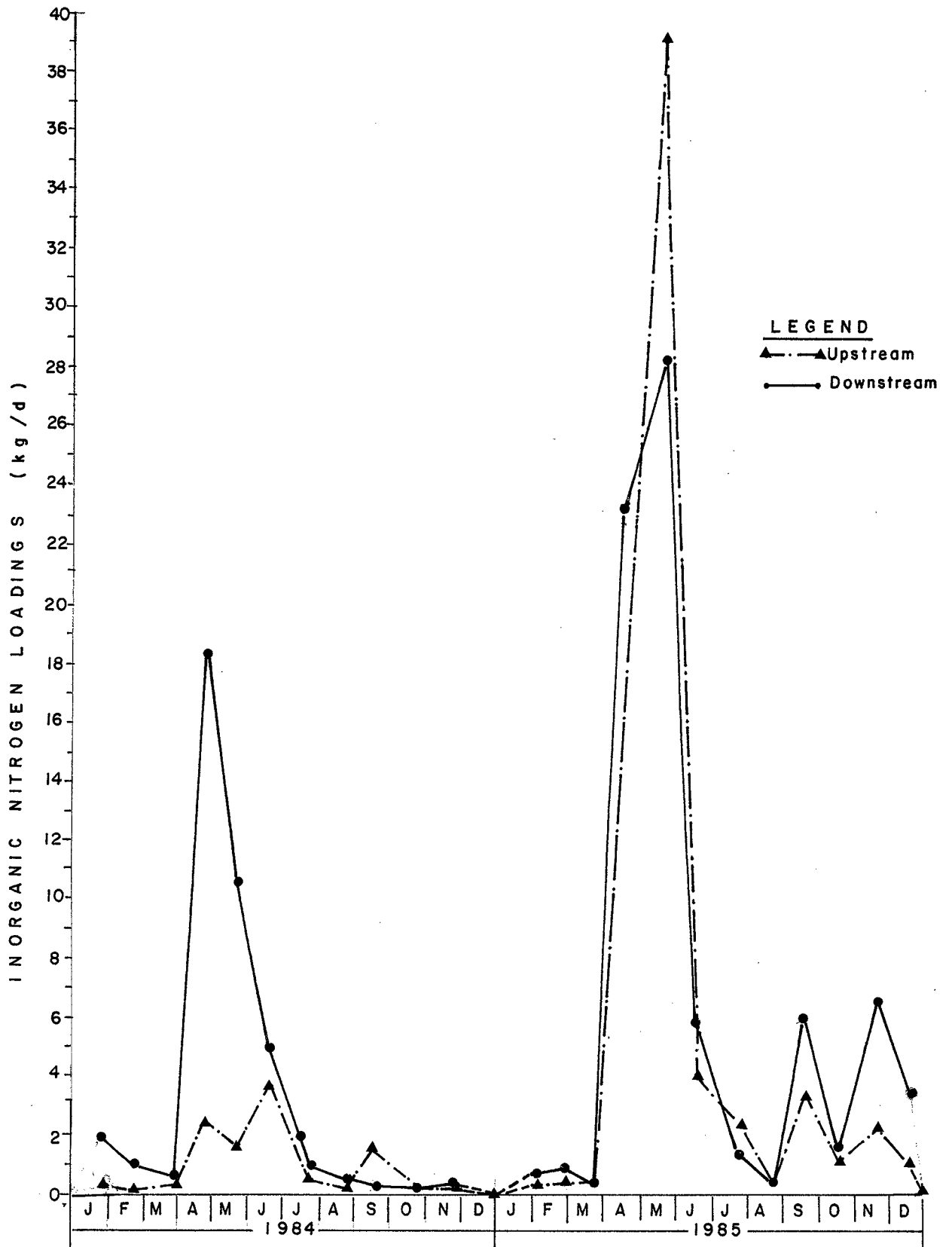
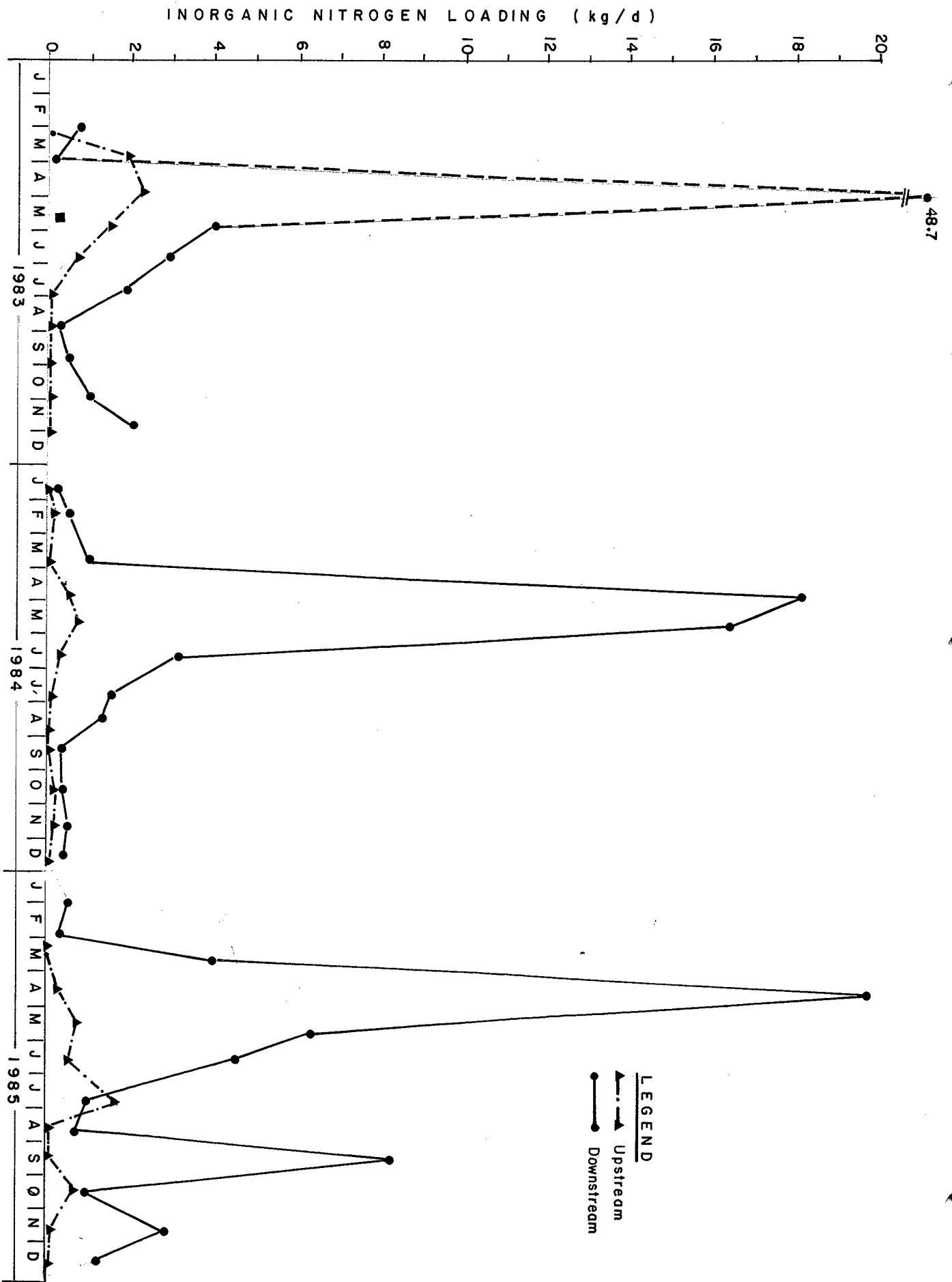


FIGURE I INORGANIC NITROGEN LOADINGS IN MICHEL CREEK  
UPSTREAM AND DOWNSTREAM OF BYRON CREEK  
COLLIERIES - 1984-1985

FIGURE 2 INORGANIC NITROGEN LOADINGS ON CORBIN CREEK - 1983 TO 1985



LEGEND  
 ▲---▲ Upstream  
 ●---● Downstream

**TABLE 1** NITROGEN WATER QUALITY DATA FOR BYRON CREEK COLLIERIES - MICHEL CREEK  
DOWNSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 01 03 | BCC    | 0.02                                       | 0.099                     | 0.002                     | 0.121                    |                             |                                  |
| 83 02 07 | BCC    | 0.02                                       | 0.088                     | 0.005                     | 0.113                    |                             |                                  |
| 83 03 03 | BCC    | 0.03                                       | 0.110                     | 0.005                     | 0.145                    |                             |                                  |
| 83 03 30 | BCC    | 0.02                                       | 0.504                     | 0.007                     | 0.531                    |                             |                                  |
| 83 04 28 | BCC    | 0.02                                       | 0.077                     | < 0.002                   | 0.099                    |                             |                                  |
| 83 05 31 | BCC    | 0.14                                       | 0.02                      | < 0.002                   | 0.162                    |                             |                                  |
| 83 06 29 | BCC    | < 0.02                                     | 0.001                     | < 0.002                   | 0.023                    |                             |                                  |
| 83 07 27 | BCC    | < 0.02                                     | --                        | < 0.002                   | 0.022                    |                             |                                  |
| 83 08 31 | BCC    | < 0.01                                     | 0.018                     | < 0.003                   | 0.031                    |                             |                                  |
| 83 09 28 | BCC    | < 0.01                                     | 0.015                     | 0.004                     | 0.020                    |                             |                                  |
| 83 10 26 | BCC    | 0.03                                       | 0.011                     | 0.006                     | 0.047                    |                             |                                  |
| 83 11 30 | BCC    | 0.02                                       | 0.080                     | < 0.003                   | 0.103                    |                             |                                  |
| 84 01 25 | BCC    | < 0.01                                     | 0.061                     | 0.015                     | 0.086                    | 0.26                        | 1.93                             |
| 84 02 22 | BCC    | < 0.01                                     | 0.051                     | 0.010                     | 0.071                    | 0.16                        | 0.98                             |
| 84 03 28 | BCC    | 0.01                                       | 0.011                     | 0.009                     | 0.030                    | 0.20                        | 0.52                             |
| 84 04 25 | BCC    | 0.03                                       | 0.151                     | 0.003                     | 0.184                    | 1.15                        | 18.28                            |
| 84 05 23 | BCC    | 0.01                                       | 0.067                     | 0.004                     | 0.081                    | 1.51                        | 10.57                            |
| 84 06 20 | BCC    | < 0.01                                     | 0.005                     | 0.003                     | 0.018                    | 3.14                        | 4.88                             |
| 84 07 25 | BCC    | < 0.01                                     | 0.003                     | 0.003                     | 0.016                    | 0.63                        | 0.87                             |
| 84 08 22 | BCC    | < 0.01                                     | 0.005                     | < 0.003                   | 0.018                    | 0.38                        | 0.56                             |
| 84 09 19 | BCC    | < 0.01                                     | 0.004                     | 0.003                     | 0.017                    | 0.20                        | 0.29                             |
| 84 10 22 | BCC    | < 0.01                                     | 0.004                     | 0.003                     | 0.017                    | 0.16                        | 0.24                             |
| 84 11 21 | BCC    | < 0.01                                     | 0.013                     | < 0.003                   | 0.26                     | 0.14                        | 0.30                             |
| 85 01 23 | BCC    | 0.01                                       | 0.047                     | 0.003                     | 0.060                    | 0.136                       | 0.71                             |
| 85 02 27 | BCC    | 0.030                                      | 0.052                     | < 0.003                   | 0.085                    | 0.11                        | 0.81                             |
| 85 03 20 | BCC    | 0.010                                      | 0.003                     | < 0.003                   | 0.013                    | 0.39                        | 0.44                             |
| 85 04 17 | BCC    | < 0.010                                    | 0.164                     | < 0.003                   | 0.177                    | 1.52                        | 23.2                             |
| 85 05 22 | BCC    | 0.010                                      | 0.030                     | < 0.003                   | 0.043                    | 7.57                        | 28.1                             |
| 85 06 19 | BCC    | 0.020                                      | 0.009                     | < 0.003                   | 0.032                    | 2.07                        | 5.72                             |
| 85 07 24 | BCC    | 0.040                                      | 0.003                     | < 0.003                   | 0.043                    | 0.376                       | 1.40                             |
| 85 08 21 | BCC    | < 0.010                                    | 0.004                     | < 0.003                   | 0.017                    | 0.244                       | 0.36                             |
| 85 09 18 | BCC    | 0.010                                      | 0.088                     | 0.008                     | 0.106                    | 0.621                       | 5.69                             |
| 85 10 16 | BCC    | 0.020                                      | 0.014                     | 0.004                     | 0.038                    | 0.465                       | 1.53                             |
| 85 11 20 | BCC    | 0.020                                      | 0.060                     | 0.004                     | 0.084                    | 0.895                       | 6.50                             |
| 85 12 18 | BCC    | 0.020                                      | 0.069                     | < 0.003                   | 0.092                    | 0.43                        | 3.42                             |



**TABLE 2** NITROGEN WATER QUALITY DATA FOR BYRON CREEK COLLIERIES - MICHEL CREEK UPSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 01 03 | BCC    | 0.03                                       | 0.003                     | 0.002                     | 0.035                    |                             |                                  |
| 83 02 07 | BCC    | 0.02                                       | 0.007                     | 0.005                     | 0.032                    |                             |                                  |
| 83 03 03 | BCC    | 0.07                                       | --                        | 0.005                     | 0.075                    |                             |                                  |
| 83 03 30 | BCC    | 0.02                                       | --                        | 0.002                     | 0.022                    |                             |                                  |
| 83 04 28 | BCC    | 0.02                                       | --                        | < 0.002                   | 0.022                    |                             |                                  |
| 83 05 31 | BCC    | 0.12                                       | 0.008                     | 0.002                     | 0.130                    |                             |                                  |
| 83 06 29 | BCC    | < 0.02                                     | --                        | < 0.002                   | 0.022                    |                             |                                  |
| 83 07 27 | BCC    | 0.05                                       | 0.002                     | < 0.002                   | 0.054                    |                             |                                  |
| 83 08 31 | BCC    | < 0.01                                     | --                        | < 0.003                   | 0.013                    |                             |                                  |
| 83 09 28 | BCC    | 0.01                                       | 0.005                     | 0.010                     | 0.025                    |                             |                                  |
| 83 10 26 | BCC    | 0.01                                       | 0.007                     | 0.003                     | 0.020                    |                             |                                  |
| 83 11 30 | BCC    | 0.02                                       | 0.023                     | < 0.003                   | 0.046                    |                             |                                  |
| 84 01 25 | BCC    | < 0.01                                     | 0.002                     | 0.006                     | 0.018                    | 0.16                        | 0.25                             |
| 84 02 22 | BCC    | < 0.01                                     | < 0.001                   | 0.005                     | 0.016                    | 0.10                        | 0.14                             |
| 84 03 28 | BCC    | 0.01                                       | 0.007                     | 0.004                     | 0.021                    | 0.13                        | 0.24                             |
| 84 04 25 | BCC    | 0.03                                       | 0.014                     | < 0.003                   | 0.046                    | 0.629                       | 2.50                             |
| 84 05 23 | BCC    | 0.02                                       | 0.020                     | 0.003                     | 0.043                    | 0.440                       | 1.63                             |
| 84 06 20 | BCC    | < 0.01                                     | 0.005                     | < 0.003                   | 0.017                    | 2.52                        | 3.70                             |
| 84 07 25 | BCC    | < 0.01                                     | 0.004                     | < 0.003                   | 0.016                    | 0.367                       | 0.51                             |
| 84 08 22 | BCC    | < 0.01                                     | 0.002                     | < 0.003                   | 0.014                    | 0.153                       | 0.186                            |
| 84 09 19 | BCC    | < 0.01                                     | 0.103                     | 0.005                     | 0.123                    | 0.137                       | 1.46                             |
| 84 10 22 | BCC    | < 0.01                                     | 0.004                     | 0.003                     | 0.017                    | 0.10                        | 0.15                             |
| 84 11 21 | BCC    | < 0.01                                     | 0.016                     | < 0.003                   | 0.028                    | 0.09                        | 0.22                             |
| 85 01 23 | BCC    | < 0.010                                    | 0.012                     | 0.003                     | 0.025                    | 0.136                       | 0.29                             |
| 85 02 27 | BCC    | 0.030                                      | 0.005                     | < 0.003                   | 0.038                    | 0.11                        | 0.36                             |
| 85 03 20 | BCC    | 0.010                                      | < 0.003                   | < 0.003                   | 0.013                    | 0.39                        | 0.44                             |
| 85 04 17 | BCC    | < 0.010                                    | 0.065                     | < 0.003                   | 0.075                    | 1.52                        | 9.8                              |
| 85 05 22 | BCC    | 0.040                                      | 0.016                     | 0.003                     | 0.059                    | 7.57                        | 38.6                             |
| 85 06 19 | BCC    | 0.020                                      | < 0.003                   | < 0.003                   | 0.023                    | 2.07                        | 4.1                              |
| 85 07 24 | BCC    | 0.070                                      | < 0.003                   | < 0.003                   | 0.073                    | 0.376                       | 2.37                             |
| 85 08 21 | BCC    | < 0.010                                    | < 0.003                   | < 0.003                   | 0.013                    | 0.244                       | 0.27                             |
| 85 09 18 | BCC    | 0.060                                      | < 0.003                   | < 0.003                   | 0.063                    | 0.621                       | 3.38                             |
| 85 10 16 | BCC    | 0.020                                      | 0.003                     | 0.004                     | 0.027                    | 0.465                       | 1.08                             |
| 85 11 20 | BCC    | 0.020                                      | 0.006                     | 0.003                     | 0.029                    | 0.895                       | 2.24                             |
| 85 12 18 | BCC    | 0.020                                      | 0.003                     | < 0.003                   | 0.026                    | 0.43                        | 0.97                             |

**TABLE 3** NITROGEN WATER QUALITY DATA FOR BYRON CREEK COLLIERIES - CORBIN CREEK AT MOUTH

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 03 03 | BCC    | 0.05                                       | 0.048                     | 0.005                     | 0.103                    | 0.077e                      | 0.685                            |
| 83 03 30 | BCC    | 0.02                                       | 0.002                     | 0.002                     | 0.024                    | 0.106e                      | 0.220                            |
| 83 04 28 | BCC    | 0.02                                       | 0.264                     | 0.005                     | 0.289                    | 1.95e                       | 48.7                             |
| 83 05 31 | BCC    | 0.11                                       | 0.045                     | 0.002                     | 0.157                    | 0.304e                      | 4.12                             |
| 83 06 29 | BCC    | < 0.02                                     | 0.033                     | < 0.002                   | 0.055                    | 0.605e                      | 2.87                             |
| 83 07 27 | BCC    | < 0.02                                     | 0.061                     | 0.003                     | 0.084                    | 0.256e                      | 1.86                             |
| 83 08 31 | BCC    | < 0.01                                     | 0.048                     | < 0.003                   | 0.061                    | 0.043e                      | 0.227                            |
| 83 09 28 | BCC    | 0.01                                       | 0.044                     | 0.008                     | 0.062                    | 0.085e                      | 0.455                            |
| 83 10 26 | BCC    | 0.05                                       | 0.075                     | 0.005                     | 0.130                    | 0.084e                      | 0.943                            |
| 83 11 30 | BCC    | 0.03                                       | 0.327                     | < 0.003                   | 0.360                    | 0.068e                      | 2.12                             |
| 83 01 25 | BCC    | < 0.01                                     | 0.013                     | 0.013                     | 0.036                    | 0.096e                      | 0.299                            |
| 83 02 22 | BCC    | < 0.01                                     | 0.069                     | 0.011                     | 0.090                    | 0.062e                      | 0.482                            |
| 84 03 28 | BCC    | 0.04                                       | 0.099                     | 0.021                     | 0.160                    | 0.075e                      | 1.04                             |
| 84 04 25 | BCC    | 0.03                                       | 0.366                     | 0.004                     | 0.400                    | 0.528e                      | 18.25                            |
| 84 05 23 | BCC    | < 0.01                                     | 0.162                     | 0.005                     | 0.177                    | 1.070                       | 16.36                            |
| 84 06 20 | BCC    | < 0.01                                     | 0.044                     | 0.005                     | 0.059                    | 0.620                       | 3.16                             |
| 84 07 25 | BCC    | < 0.01                                     | 0.053                     | 0.003                     | 0.068                    | 0.264                       | 1.55                             |
| 84 08 22 | BCC    | < 0.01                                     | 0.053                     | < 0.003                   | 0.065                    | 0.224e                      | 1.26                             |
| 84 09 19 | BCC    | < 0.01                                     | 0.047                     | 0.006                     | 0.063                    | 0.060                       | 0.327                            |
| 84 10 22 | BCC    | < 0.01                                     | 0.040                     | 0.004                     | 0.054                    | 0.061e                      | 0.285                            |
| 84 11 28 | BCC    | < 0.01                                     | 0.086                     | < 0.003                   | 0.098                    | 0.055                       | 0.0466                           |
| 84 12 19 | BCC    | < 0.01                                     | 0.003                     | 0.113                     | 0.136                    | 0.036                       | 0.423                            |
| 84 01 30 | BCC    | 0.03                                       | 0.111                     | 0.003                     | 0.144                    | 0.038                       | 0.473                            |
| 85 02 27 | BCC    | < 0.01                                     | 0.105                     | < 0.003                   | 0.118                    | 0.031                       | 0.316                            |
| 85 03 20 | BCC    | 0.01                                       | 0.407                     | < 0.003                   | 0.420                    | 0.109                       | 3.96                             |
| 85 04 17 | BCC    | < 0.01                                     | 0.356                     | 0.004                     | 0.370                    | 0.617                       | 19.72                            |
| 85 05 22 | BCC    | < 0.01                                     | 0.040                     | 0.003                     | 0.053                    | 1.400                       | 6.41                             |
| 85 06 19 | BCC    | 0.07                                       | 0.073                     | < 0.003                   | 0.146                    | 0.362                       | 4.57                             |
| 85 07 24 | BCC    | 0.06                                       | 0.031                     | < 0.003                   | 0.094                    | 0.128                       | 1.04                             |
| 85 08 21 | BCC    | < 0.01                                     | 0.062                     | < 0.003                   | 0.075                    | 0.100                       | 0.648                            |
| 85 09 18 | BCC    | < 0.01                                     | 0.369                     | 0.011                     | 0.390                    | 0.246                       | 8.29                             |
| 85 10 16 | BCC    | 0.08                                       | 0.002                     | 0.005                     | 0.087                    | 0.130                       | 0.977                            |
| 85 11 20 | BCC    | < 0.01                                     | 0.116                     | 0.004                     | 0.130                    | 0.250                       | 2.81                             |
| 85 12 18 | BCC    | 0.03                                       | 0.088                     | < 0.003                   | 0.121                    | 0.120                       | 1.25                             |

e - estimated

**TABLE 4** NITROGEN WATER QUALITY DATA FOR BYRON CREEK COLLIERIES - CORBIN CREEK  
UPSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 03 03 | BCC    | 0.02                                       | 0.019                     | 0.005                     | 0.044                    |                             |                                  |
| 83 03 30 | BCC    | 0.02                                       | 0.060                     | 0.002                     | 0.082                    | 0.269e                      | 1.91                             |
| 83 04 28 | BCC    | < 0.02                                     | 0.004                     | < 0.002                   | 0.026                    | 1.03e                       | 2.31                             |
| 83 05 31 | BCC    | 0.10                                       | 0.002                     | < 0.002                   | 0.104                    | 0.168e                      | 1.51                             |
| 83 06 29 | BCC    | < 0.02                                     | --                        | < 0.002                   | 0.022                    | 0.063e                      | 0.680                            |
| 83 07 27 | BCC    | < 0.02                                     | --                        | < 0.002                   | 0.022                    | 0.063e                      | 0.120                            |
| 83 08 31 | BCC    | < 0.01                                     | --                        | 0.003                     | 0.013                    | 0.030e                      | 0.034                            |
| 83 09 28 | BCC    | < 0.01                                     | --                        | 0.007                     | 0.017                    | 0.038e                      | 0.056                            |
| 83 10 26 | BCC    | < 0.01                                     | 0.005                     | 0.003                     | 0.015                    | 0.027e                      | 0.035                            |
| 83 11 30 | BCC    | 0.02                                       | 0.013                     | < 0.003                   | 0.036                    | 0.024                       | 0.075                            |
| 83 01 25 | BCC    | < 0.01                                     | < 0.001                   | 0.006                     | 0.016                    |                             |                                  |
| 83 02 22 | BCC    | < 0.01                                     | 0.003                     | 0.005                     | 0.018                    | 0.025e                      | 0.039                            |
| 84 03 28 | BCC    | 0.01                                       | < 0.001                   | 0.003                     | 0.013                    | 0.022                       | 0.025                            |
| 84 04 25 | BCC    | 0.03                                       | 0.016                     | < 0.003                   | 0.48                     | 0.127                       | 0.527                            |
| 84 05 23 | BCC    | < 0.01                                     | 0.007                     | < 0.003                   | 0.019                    | 0.486                       | 0.798                            |
| 84 06 20 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.015                    | 0.220                       | 0.285                            |
| 84 07 25 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.015                    | 0.089                       | 0.115                            |
| 84 08 22 | BCC    | < 0.01                                     | < 0.001                   | < 0.003                   | 0.013                    | 0.069e                      | 0.078                            |
| 84 09 19 | BCC    | < 0.01                                     | < 0.001                   | 0.007                     | 0.017                    | 0.020                       | 0.029                            |
| 84 10 22 | BCC    | 0.17                                       | < 0.001                   | < 0.003                   | 0.173                    | 0.015                       | 0.224                            |
| 84 11 21 | BCC    | 0.12                                       | < 0.001                   | < 0.003                   | 0.123                    | 0.015e                      | 0.159                            |
| 84 12 26 | BCC    | < 0.01                                     | < 0.003                   | 0.006                     | 0.019                    | 0.015e                      | 0.025                            |
| 85 01 30 | BCC    | < 0.01                                     | 0.007                     | < 0.003                   | 0.040                    | Frozen                      | --                               |
| 85 02 27 | BCC    | < 0.01                                     | 0.001                     | < 0.003                   | 0.014                    | Frozen                      | --                               |
| 85 03 20 | BCC    | < 0.01                                     | 0.004                     | < 0.003                   | 0.017                    | Frozen                      | --                               |
| 85 04 17 | BCC    | < 0.01                                     | 0.005                     | < 0.003                   | 0.018                    | 0.169                       | 0.263                            |
| 85 05 22 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.013                    | 0.660                       | 0.741                            |
| 85 06 19 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.043                    | 0.154                       | 0.572                            |
| 85 07 24 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.053                    | 0.362                       | 1.66                             |
| 85 08 21 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.013                    | 0.027                       | 0.030                            |
| 85 09 18 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.013                    | 0.050                       | 0.056                            |
| 85 10 16 | BCC    | < 0.01                                     | 0.002                     | 0.005                     | 0.087                    | 0.088                       | 0.661                            |
| 85 11 20 | BCC    | < 0.01                                     | < 0.003                   | < 0.003                   | 0.013                    | 0.110                       | 0.124                            |
| 85 12 18 | BCC    | < 0.01                                     | 0.007                     | < 0.003                   | 0.040                    | Frozen                      | --                               |

e - estimated

APPENDIX III

WESTAR-GREENHILLS NUTRIENT DATA

- INORGANIC NITROGEN LOADING GRAPHS
- NUTRIENT DATA SET

INORGANIC NITROGEN LOADINGS (kg/d)

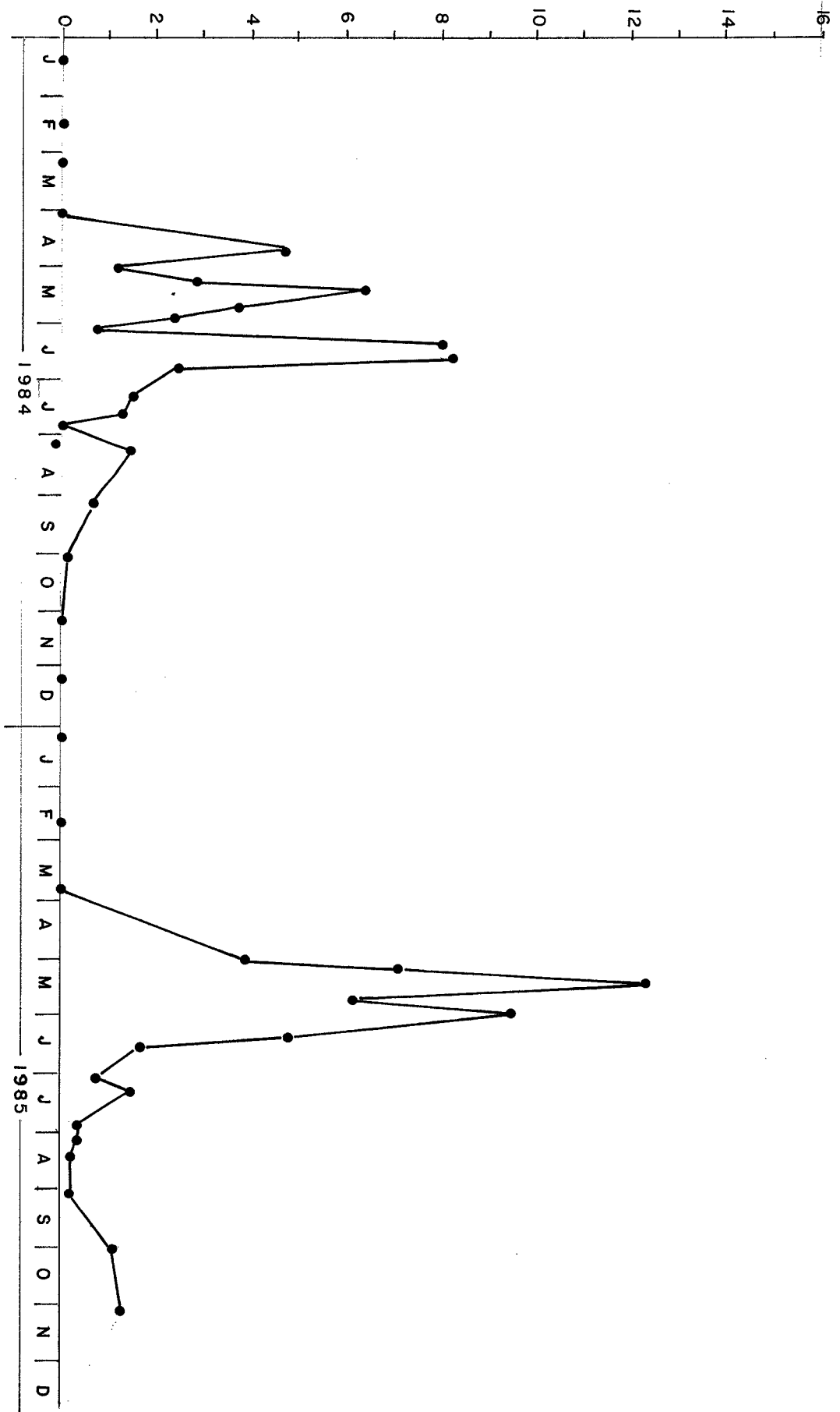
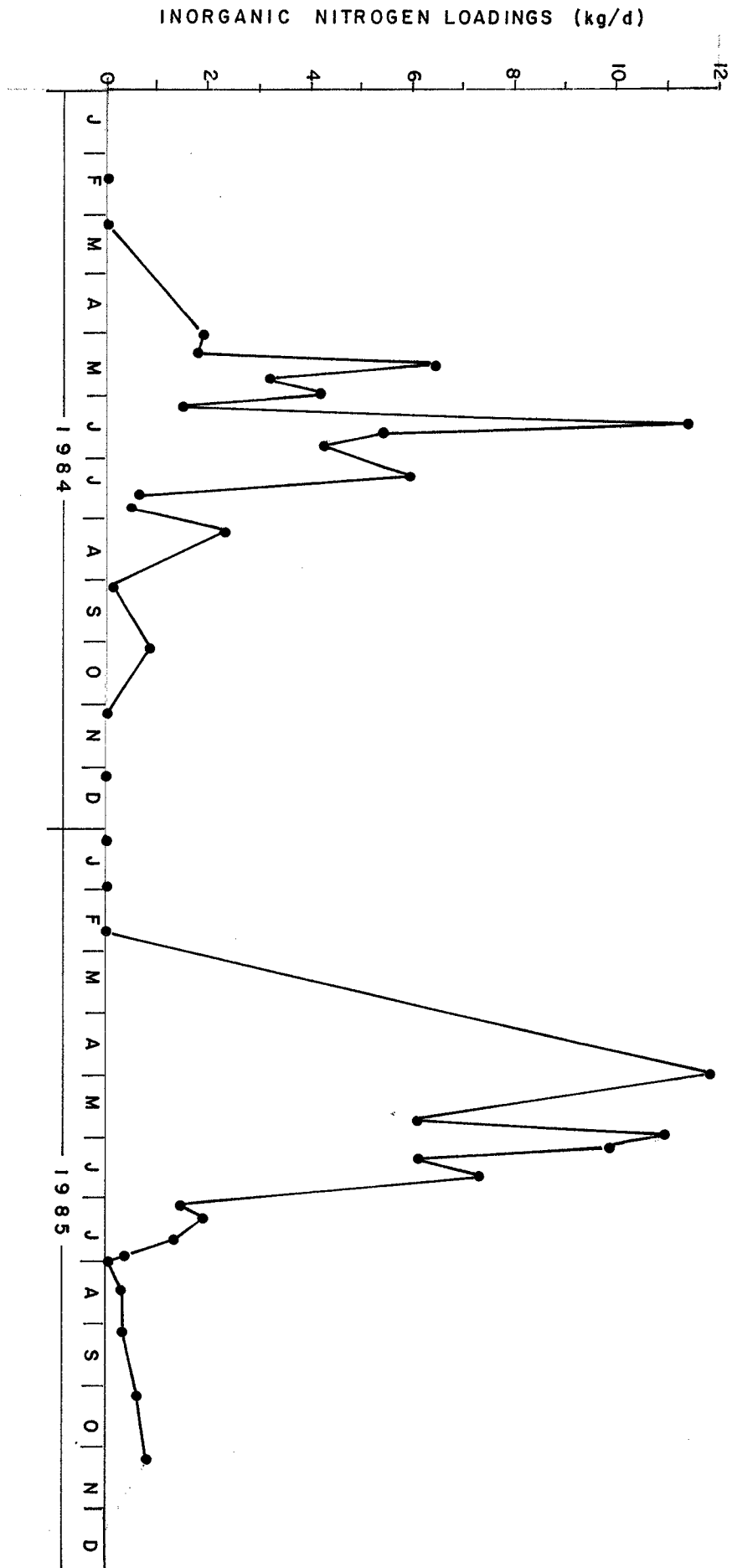


FIGURE 1 INORGANIC NITROGEN LOADINGS - THOMPSON CREEK (WS-9) - 1984 AND 1985

FIGURE 2 INORGANIC NITROGEN LOADINGS - PORTER CREEK - 1984 AND 1985



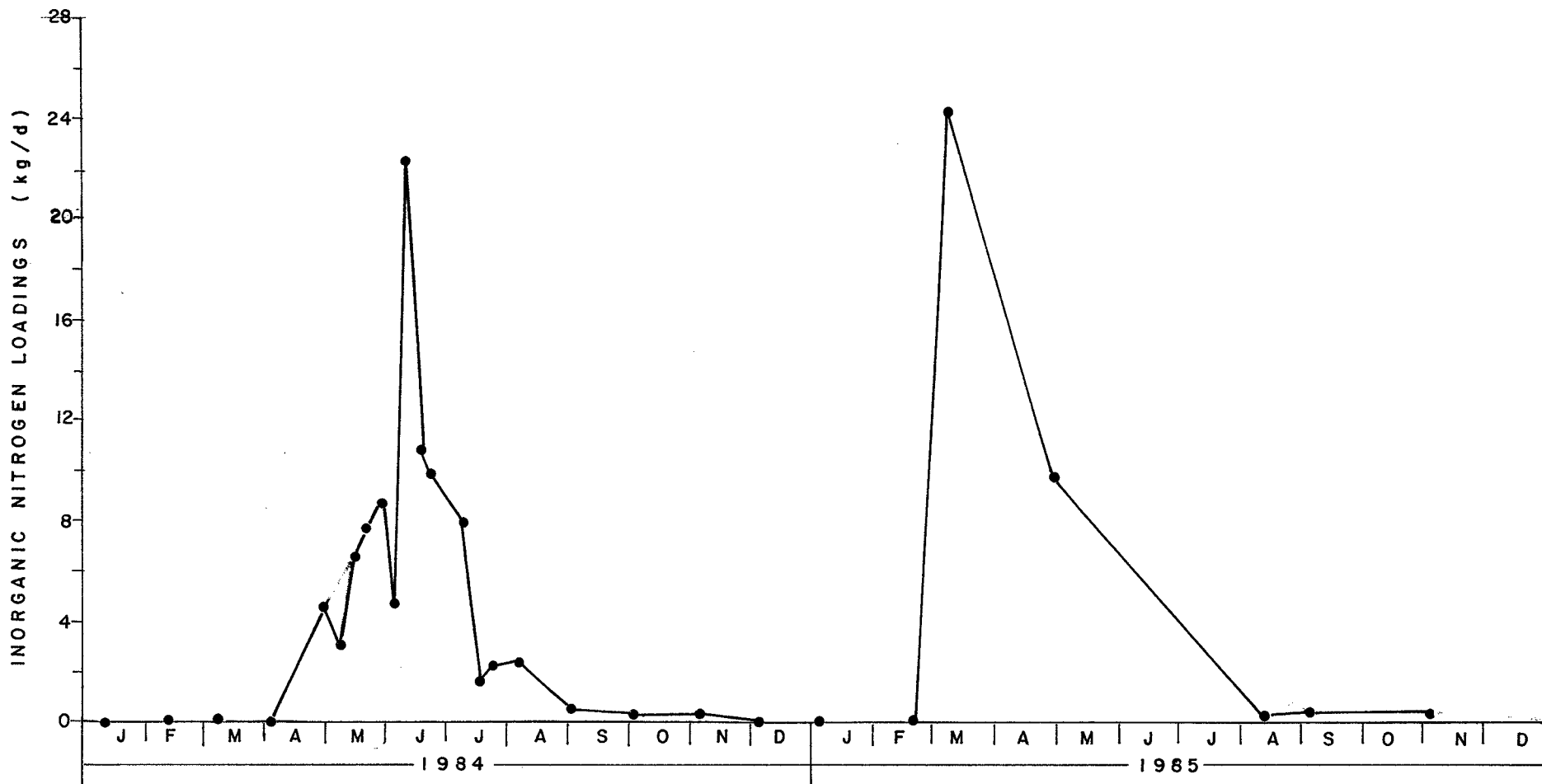
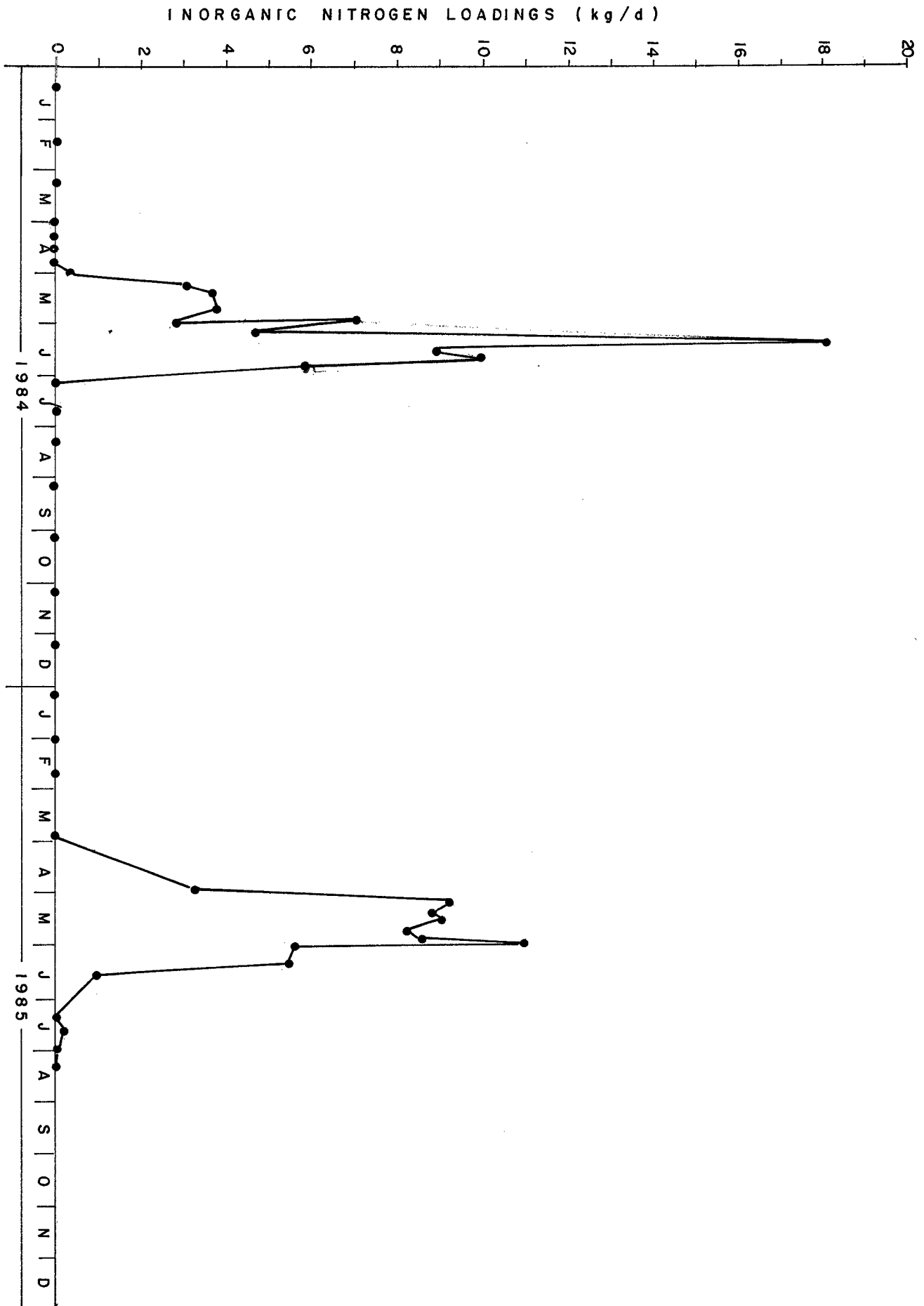


FIGURE 3 INORGANIC NITROGEN LOADINGS IN CATARACT CREEK - 1984 AND 1985

FIGURE 4 INORGANIC NITROGEN LOADINGS - GREENHILLS CREEK - 1984 AND 1985





**TABLE 1** NITROGEN WATER QUALITY DATA FOR WESTAR MINING LTD. - GREENHILLS OPERATIONS - PORTER CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 01 11 | WML    | 0.002                                      | 0.113                     | 0.002                     | 0.117                    |                             |                                  |
| 84 02 13 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 03 06 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 03 | WML    | 0.072                                      | 0.115                     | 0.001                     | 0.188                    |                             |                                  |
| 84 04 09 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 04 17 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 04 24 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 05 01 | WML    | 0.050                                      | 0.390                     | 0.001                     | 0.441                    | 0.049                       | 1.87                             |
| 84 05 09 | WML    | --                                         | 0.465                     |                           | 0.465                    | 0.045                       | 1.81                             |
| 84 05 15 | WML    | 0.048                                      | 0.440                     | 0.002                     | 0.490                    | 0.154                       | 6.52                             |
| 84 05 22 | WML    | 0.035                                      | 0.310                     | 0.003                     | 0.348                    | 0.107                       | 3.22                             |
| 84 05 29 | WML    | ND                                         | 0.255                     | 0.002                     | 0.257                    | 0.190                       | 4.22                             |
| 84 06 05 | WML    | 0.020                                      | 0.140                     | 0.002                     | 0.162                    | 0.109                       | 1.53                             |
| 84 06 12 | WML    | 0.113                                      | 0.700                     | 0.004                     | 0.817                    | 0.161                       | 11.36                            |
| 84 06 19 | WML    | 0.045                                      | 0.510                     | 0.004                     | 0.559                    | 0.113                       | 5.46                             |
| 84 06 25 | WML    | 0.056                                      | 0.435                     | 0.004                     | 0.495                    | 0.099                       | 4.23                             |
| 84 07 09 | WML    | 0.183                                      | 0.550                     | 0.022                     | 0.755                    | 0.092                       | 6.00                             |
| 84 07 19 | WML    | 0.045                                      | ND                        | 0.006                     | 0.051                    | 0.170                       | 0.749                            |
| 84 07 23 | WML    | 0.039                                      | ND                        | 0.001                     | 0.040                    | 0.170                       | 0.588                            |
| 84 08 07 | WML    | 0.023                                      | 0.190                     | 0.001                     | 0.214                    | 0.127                       | 2.35                             |
| 84 09 04 | WML    | 0.252                                      | ND                        | 0.004                     | 0.256                    | 0.007                       | 0.155                            |
| 84 10 02 | WML    | 0.135                                      | 0.247                     | 0.003                     | 0.385                    | 0.028                       | 0.931                            |
| 84 11 05 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 12 05 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 01 04 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 01 29 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 02 20 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 03 26 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 85 04 16 | WML    | --                                         | 0.650                     | 0.002                     | 0.652                    | --                          | --                               |
| 85 04 30 | WML    | 0.052                                      | 0.500                     | 0.001                     | 0.553                    | 0.249                       | 11.90                            |
| 85 05 08 | WML    | 0.012                                      | 0.635                     | --                        | 0.647                    | --                          | --                               |
| 85 05 21 | WML    | 0.037                                      | 0.290                     | 0.001                     | 0.328                    | 0.217                       | 6.15                             |
| 85 05 28 | WML    | 0.212                                      | 0.465                     | 0.001                     | 0.678                    | 0.188                       | 11.01                            |
| 85 06 04 | WML    | 0.110                                      | 0.565                     | 0.001                     | 0.676                    | 0.170                       | 9.93                             |

CONTINUED...

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 85 06 10 | WML    | 0.018                                      | 0.390                     | 0.007                     | 0.415                    | 0.172                       | 6.17                             |
| 85 06 18 | WML    | --                                         | 0.100                     | 0.003                     | 0.103                    | 0.835                       | 7.43                             |
| 85 06 25 | WML    | --                                         | 0.010                     |                           | 0.010                    | 0.071                       | 5.30                             |
| 85 07 03 | WML    | 0.058                                      | 0.320                     | 0.007                     | 0.385                    | 0.043                       | 1.43                             |
| 85 07 09 | WML    | 0.035                                      | 0.510                     | 0.001                     | 0.546                    | 0.040                       | 1.89                             |
| 85 07 19 | WML    | 0.052                                      | 0.345                     |                           | 0.397                    | 0.040                       | 1.37                             |
| 85 07 26 | WML    | 0.080                                      | 0.115                     | 0.005                     | 0.200                    | 0.021                       | 0.362                            |
| 85 07 29 | WML    |                                            | 0.080                     | 0.003                     | 0.083                    | 0.019                       | 0.136                            |
| 85 08 12 | WML    | 0.045                                      | 0.160                     | 0.002                     | 0.207                    | 0.021                       | 0.376                            |
| 85 09 02 | WML    | 0.070                                      | 0.110                     | 0.001                     | 0.181                    | 0.018                       | 0.282                            |
| 85 10 02 | WML    | 0.100                                      | 0.355                     | 0.016                     | 0.471                    | 0.015                       | 0.610                            |
| 85 11 04 | WML    | 0.235                                      | 0.225                     | 0.001                     | 0.461                    | 0.019                       | 0.757                            |

**TABLE 2** NITROGEN WATER QUALITY DATA FOR WESTAR MINING LTD. - GREENHILLS OPERATIONS - CATARACT CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 01 11 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 02 13 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 03 06 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 03 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 09 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 04 17 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 04 24 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 84 05 01 | WML    | 0.057                                      | 0.550                     | 0.001                     | 0.608                    | 0.088                       | 4.62                             |
| 84 05 09 | WML    |                                            | 0.510                     |                           | 0.510                    | 0.065                       | 2.86                             |
| 84 05 15 | WML    | 0.049                                      | 0.340                     | 0.002                     | 0.391                    | 0.196                       | 6.62                             |
| 84 05 22 | WML    | ND                                         | 0.465                     | 0.003                     | 0.468                    | 0.191                       |                                  |
| 84 05 29 | WML    | 0.026                                      | 0.470                     | 0.003                     | 0.499                    | 0.210                       |                                  |
| 84 06 05 | WML    | 0.007                                      | 0.290                     | 0.002                     | 0.299                    | 0.186                       |                                  |
| 84 06 12 | WML    | 0.138                                      | 0.710                     | 0.006                     | 0.854                    | 0.303                       |                                  |
| 84 06 19 | WML    | 0.064                                      | 0.600                     | ND                        | 0.664                    | 0.190                       |                                  |
| 84 06 25 | WML    | 0.072                                      | 0.540                     | 0.005                     | 0.617                    | 0.184                       |                                  |
| 84 07 04 | WML    | --                                         |                           |                           |                          | 0.130                       |                                  |
| 84 07 09 | WML    | 0.179                                      | 0.415                     | 0.002                     | 0.596                    | 0.156                       |                                  |
| 84 07 19 | WML    | 0.033                                      | 0.100                     | 0.006                     | 0.139                    | 0.147                       |                                  |
| 84 07 23 | WML    | 0.027                                      | 0.162                     | ND                        | 0.189                    | 0.142                       |                                  |
| 84 08 07 | WML    | 0.028                                      | 0.250                     | 0.001                     | 0.279                    | 0.099                       |                                  |
| 84 09 04 | WML    | 0.237                                      | ND                        | 0.003                     | 0.240                    | 0.028                       |                                  |
| 84 10 02 | WML    | 0.080                                      | 0.133                     | 0.002                     | 0.215                    | 0.016                       |                                  |
| 84 11 05 | WML    | 0.027                                      | 0.140                     | ND                        | 0.167                    | 0.016                       |                                  |
| 84 12 05 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 01 04 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 01 29 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 02 20 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 03 26 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 85 04 16 | WML    |                                            |                           |                           |                          | -- Inaccessible --          |                                  |
| 85 04 22 | WML    | 0.009                                      | 0.0833                    |                           | 0.842                    |                             |                                  |
| 85 04 30 | WML    | 0.030                                      | 0.750                     | 0.001                     | 0.781                    | 0.145                       | 9.78                             |
| 85 05 07 | WML    | 0.015                                      | 1.19                      | 0.002                     | 1.207                    | 0.233                       | 24.30                            |
| 85 05 09 | WML    | 0.113                                      | 0.69                      | 0.003                     | 0.806                    |                             |                                  |
| 85 05 15 | WML    | 0.128                                      | 0.410                     | 0.003                     | 0.541                    |                             |                                  |

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TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 85 05 21 | WML    | 0.072                                      | 0.350                     | 0.002                     | 0.424                    |                             |                                  |
| 85 07 26 | WML    | 0.056                                      | 0.105                     | 0.005                     | 0.165                    |                             |                                  |
| 85 07 29 | WML    |                                            | 0.125                     | 0.001                     | 0.126                    |                             |                                  |
| 85 08 12 | WML    | 0.045                                      | 0.100                     | 0.050                     | 0.195                    | 0.009                       | 0.152                            |
| 85 09 02 | WML    | 0.070                                      | 0.105                     | 0.002                     | 0.177                    | 0.020                       | 0.306                            |
| 85 10 02 | WML    | 0.140                                      | 0.210                     | 0.004                     | 0.354                    | 0.013                       | 0.398                            |
| 85 11 04 | WML    | 0.050                                      | 0.260                     | 0.005                     | 0.315                    | 0.013                       | 0.354                            |

**TABLE 3** NITROGEN WATER QUALITY DATA FOR WESTAR MINING LTD. - GREENHILLS OPERATIONS - GREENHILLS CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 01 11 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 02 13 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 03 06 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 03 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 09 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 17 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 24 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 05 01 | WML    | 0.057                                      | 0.440                     | 0.013                     | 0.510                    | 0.010                       | 0.441                            |
| 84 05 09 | WML    |                                            | 0.535                     | --                        | 0.535                    | 0.069                       | 3.19                             |
| 84 05 14 | WML    | 0.095                                      | 0.200                     | 0.027                     | 0.323                    | 0.132                       | 3.68                             |
| 84 05 22 | WML    | 0.012                                      | 0.220                     | 0.011                     | 0.243                    | 0.181                       | 3.80                             |
| 84 05 28 | WML    | 0.052                                      | 0.160                     | 0.009                     | 0.221                    | 0.156                       | 2.98                             |
| 84 05 29 | WML    | 0.028                                      | 0.400                     | 0.025                     | 0.453                    | 0.181                       | 7.08                             |
| 84 06 04 | WML    | 0.049                                      | 0.250                     | 0.003                     | 0.302                    | 0.181                       | 4.72                             |
| 84 06 12 | WML    | 0.151                                      | 0.640                     | 0.006                     | 0.797                    | 0.263                       | 18.1                             |
| 84 06 18 | WML    | 0.084                                      | 0.415                     | 0.002                     | 0.501                    | 0.207                       | 8.96                             |
| 84 06 19 | WML    | 0.109                                      | 0.415                     | 0.001                     | 0.525                    | 0.221                       | 10.02                            |
| 84 06 25 | WML    | 0.109                                      | 0.400                     | 0.003                     | 0.512                    | 0.133                       | 5.88                             |
| 84 07 03 | WML    |                                            |                           |                           |                          | 0.069                       |                                  |
| 84 07 09 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 07 19 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 07 23 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 08 07 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 09 04 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 10 02 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 11 05 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 12 05 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 01 04 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 01 29 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 02 20 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 03 26 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 04 16 | WML    | 0.065                                      | 0.250                     | 0.008                     | 0.323                    | --                          |                                  |
| 85 04 22 | WML    | 0.005                                      | 0.343                     | 0.009                     | 0.357                    | --                          |                                  |
| 85 04 30 | WML    | 0.077                                      | 0.125                     | 0.021                     | 0.223                    | 0.172                       | 3.31                             |
| 85 05 02 | WML    | 0.052                                      | 0.215                     | 0.013                     | 0.280                    | --                          |                                  |

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TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 85 05 06 | WML    | 0.130                                      | 0.390                     | 0.010                     | 0.530                    | 0.202                       | 9.25                             |
| 85 05 13 | WML    | 0.063                                      | 0.500                     | 0.005                     | 0.568                    | 0.182                       | 8.93                             |
| 85 05 14 | WML    | 0.150                                      | 0.415                     | 0.007                     | 0.572                    | 0.182                       | 8.99                             |
| 85 05 21 | WML    | 0.030                                      | 0.240                     | 0.002                     | 0.272                    | 0.348                       | 8.18                             |
| 85 05 27 | WML    | 0.043                                      | 0.420                     | 0.002                     | 0.465                    | 0.212                       | 8.52                             |
| 85 05 30 | WML    | 0.080                                      | 0.705                     | 0.007                     | 0.792                    | 0.161                       | 11.02                            |
| 85 06 03 | WML    | 0.082                                      | 0.260                     | 0.001                     | 0.343                    | 0.189                       | 5.60                             |
| 85 06 10 | WML    | 0.078                                      | 0.390                     | 0.015                     | 0.483                    | 0.131                       | 5.47                             |
| 85 06 17 | WML    | --                                         | 0.265                     | 0.006                     | 0.271                    | 0.041                       | 0.96                             |
| 85 07 02 | WML    | 0.057                                      | 0.590                     | 0.002                     | 0.649                    |                             |                                  |
| 85 07 11 | WML    | --                                         | 0.065                     | 0.002                     | 0.067                    | 0.002                       | 0.012                            |
| 85 07 19 | WML    | 0.052                                      | 1.340                     | 0.002                     | 1.394                    | 0.001                       | 0.120                            |
| 85 07 26 | WML    | 0.085                                      | 0.160                     | 0.005                     | 0.250                    | 0.002                       | 0.043                            |
| 85 07 29 | WML    | 0.50                                       | 0.045                     | 0.095                     | 0.140                    | 0.003                       | 0.036                            |
| 85 08 07 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 11 04 | WML    |                                            |                           |                           |                          | No Flow                     |                                  |

**TABLE 4** NITROGEN WATER QUALITY DATA FOR WESTAR MINING LTD. - GREENHILLS OPERATIONS - THOMPSON CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 01 11 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 02 13 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 03 05 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 03 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 09 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 04 17 | WML    | 0.043                                      | 0.450                     | 0.001                     |                          |                             |                                  |
| 84 04 24 | WML    | 0.079                                      | 0.365                     | 0.026                     | 0.470                    | 0.115                       | 4.67                             |
| 84 05 01 | WML    | 0.050                                      | 0.270                     | ND                        | 0.320                    | 0.042                       | 1.16                             |
| 84 05 09 | WML    | --                                         | 0.425                     | --                        | 0.425                    | 0.079                       | 2.90                             |
| 84 05 14 | WML    | 0.133                                      | 0.755                     | 0.001                     | 0.889                    | 0.085                       | 6.53                             |
| 84 05 22 | WML    | ND                                         | 0.300                     | 0.003                     | 0.303                    | 0.141                       | 3.69                             |
| 84 05 28 | WML    | 0.060                                      | 0.160                     | ND                        | 0.220                    | 0.127                       | 2.41                             |
| 84 06 04 | WML    | 0.039                                      | 0.055                     | 0.001                     | 0.095                    | 0.085                       | 0.698                            |
| 84 06 11 | WML    | 0.127                                      | 0.390                     | 0.005                     | 0.522                    | 0.178                       | 8.03                             |
| 84 06 18 | WML    | 0.116                                      | 0.420                     | 0.002                     | 0.538                    | 0.176                       | 8.18                             |
| 84 06 25 | WML    | 0.061                                      | 0.290                     | 0.003                     | 0.354                    | 0.079                       | 2.42                             |
| 84 07 03 | WML    |                                            |                           |                           |                          | 0.057                       |                                  |
| 84 07 09 | WML    | 0.235                                      | 0.200                     | 0.001                     | 0.436                    | 0.040                       | 1.51                             |
| 84 07 19 | WML    | 0.159                                      | 0.290                     | 0.004                     | 0.453                    | 0.034                       | 1.33                             |
| 84 07 23 | WML    | ND                                         | ND                        | 0.001                     | 0.001                    | 0.034                       | 0.003                            |
| 84 08 07 | WML    | 0.077                                      | 0.590                     | 0.001                     | 0.598                    | 0.028                       | 1.45                             |
| 84 09 04 | WML    | 0.260                                      | 0.733                     | 0.009                     | 1.002                    | 0.008                       | 0.693                            |
| 84 10 02 | WML    | 0.138                                      | 0.053                     | 0.002                     | 0.193                    | 0.011                       | 0.183                            |
| 84 11 05 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 84 12 05 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 01 04 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 02 20 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 03 26 | WML    |                                            |                           |                           |                          | Frozen                      |                                  |
| 85 04 17 | WML    | 0.020                                      | 0.250                     | 0.002                     | 0.272                    |                             |                                  |
| 85 05 01 | WML    | --                                         | 0.290                     | 0.002                     | 0.292                    | 0.157                       | 3.96                             |
| 85 05 06 | WML    | 0.046                                      | 0.340                     | 0.002                     | 0.388                    | 0.214                       | 7.17                             |
| 85 05 13 | WML    | 0.067                                      | 0.575                     |                           | 0.642                    | 0.232                       | 12.37                            |
| 85 05 14 | WML    | 0.140                                      | 0.505                     | 0.001                     | 0.646                    |                             |                                  |
| 85 05 22 | WML    | 0.078                                      | 0.190                     | 0.002                     | 0.270                    | 0.219                       | 5.11                             |
| 85 05 27 | WML    | 0.240                                      | 0.310                     | 0.002                     | 0.55                     | 0.200                       | 9.54                             |
| 85 06 03 | WML    | 0.043                                      | 0.430                     | 0.001                     | 0.474                    |                             |                                  |

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TABLE 4 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 85 06 11 | WML    | 0.049                                      | 0.305                     |                           | 0.403                    | 0.135                       | 4.70                             |
| 85 06 17 | WML    | --                                         | 0.220                     | 0.007                     | 0.227                    | 0.085                       | 1.67                             |
| 85 07 02 | WML    | 0.051                                      | 0.115                     | 0.003                     | 0.169                    | 0.048                       | 0.70                             |
| 85 07 26 | WML    | 0.214                                      | 0.145                     | 0.009                     | 0.368                    | 0.011                       | 0.350                            |
| 85 08 01 | WML    | 0.100                                      | 0.195                     |                           | 0.295                    | 0.011                       | 0.280                            |
| 85 08 12 | WML    | 0.052                                      | 0.105                     | 0.002                     | 0.159                    | 0.017                       | 0.234                            |
| 85 09 02 | WML    | 0.073                                      | 0.100                     | 0.002                     | 0.175                    | 0.011                       | 0.166                            |
| 85 10 01 | WML    | 0.100                                      | 0.150                     | 0.017                     | 0.267                    | 0.048                       | 1.11                             |
| 85 10 03 | WML    | --                                         |                           |                           |                          |                             |                                  |
| 85 11 04 | WML    | 0.098                                      | 0.215                     | 0.003                     | 0.316                    | 0.048                       | 1.31                             |



APPENDIX IV

FORDING COAL NUTRIENT DATA

- INORGANIC NITROGEN LOADING GRAPHS
- NUTRIENT DATA SET

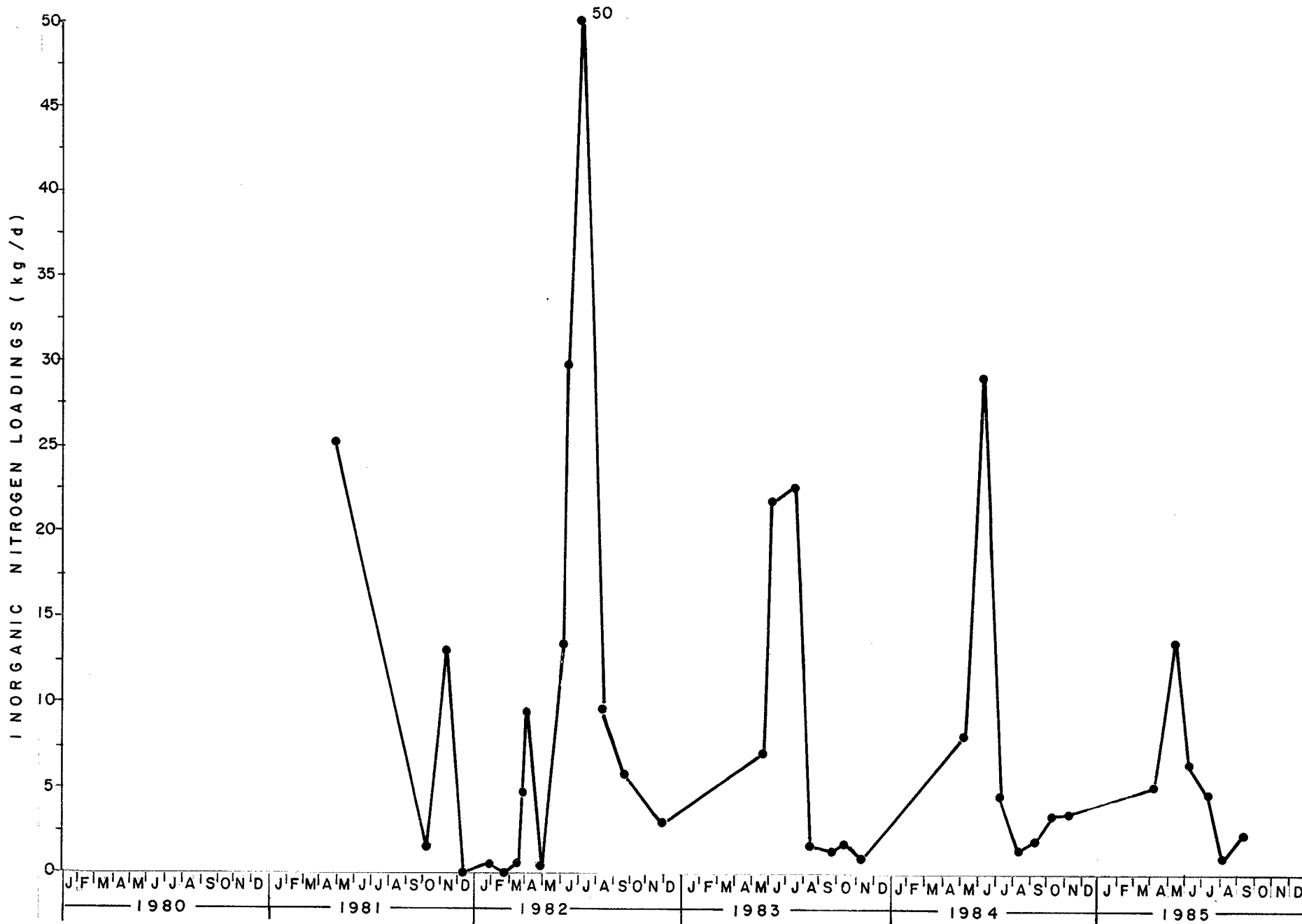


FIGURE 1 INORGANIC NITROGEN LOADINGS - FORDING RIVER UPSTREAM OF MINE SITE (FR1) 1980 - 1985

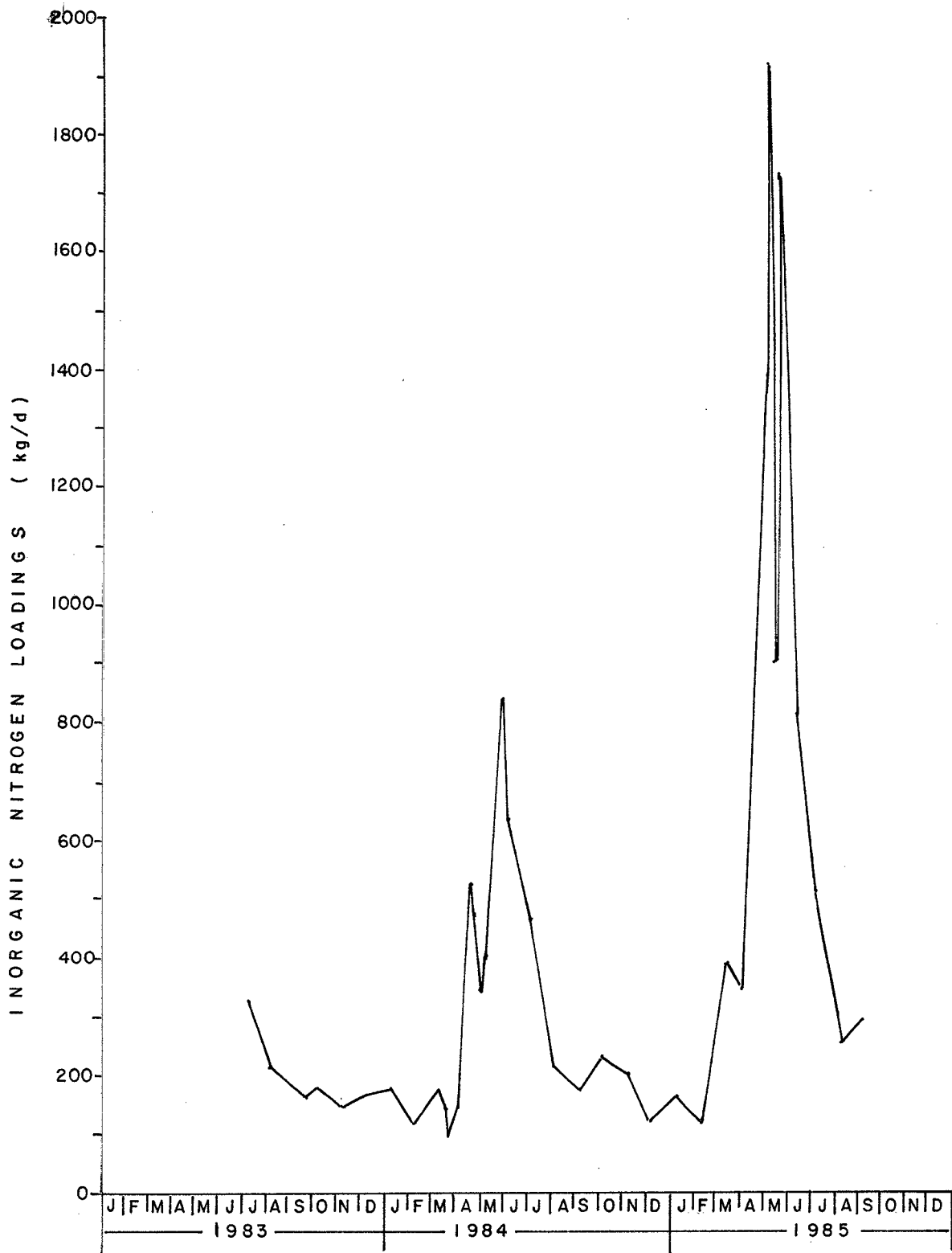


FIGURE 2 INORGANIC NITROGEN LOADINGS - FORDING RIVER  
UPSTREAM OF KILMARNOCK CREEK (FR2) - 1983-1985

I N O R G A N I C   N I T R O G E N   L O A D I N G S   ( k g / d )

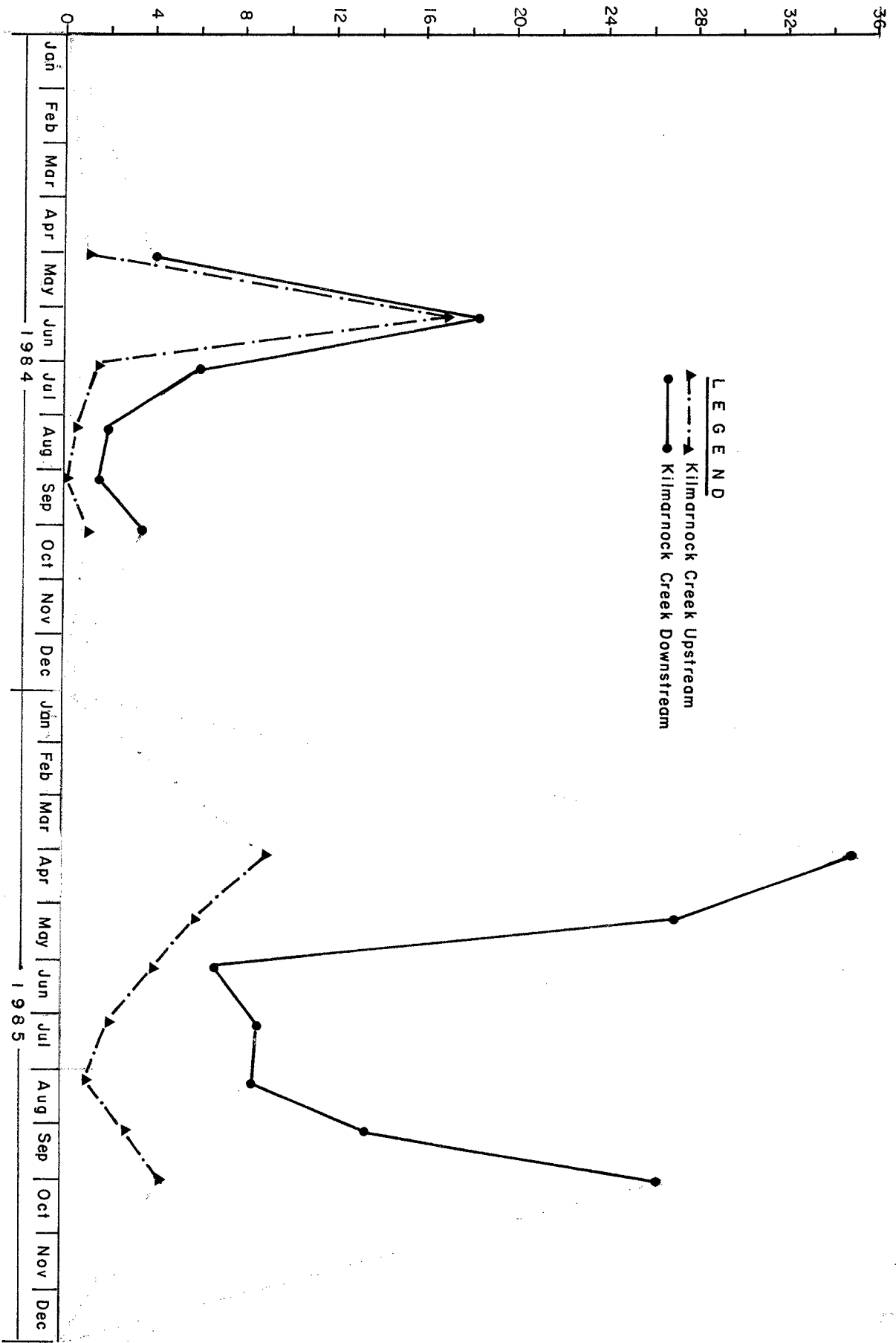


FIGURE 3 INORGANIC NITROGEN LOADINGS KILMARNOCK CREEK UPSTREAM OF BROWNIE CREEK - 1984 - 1985

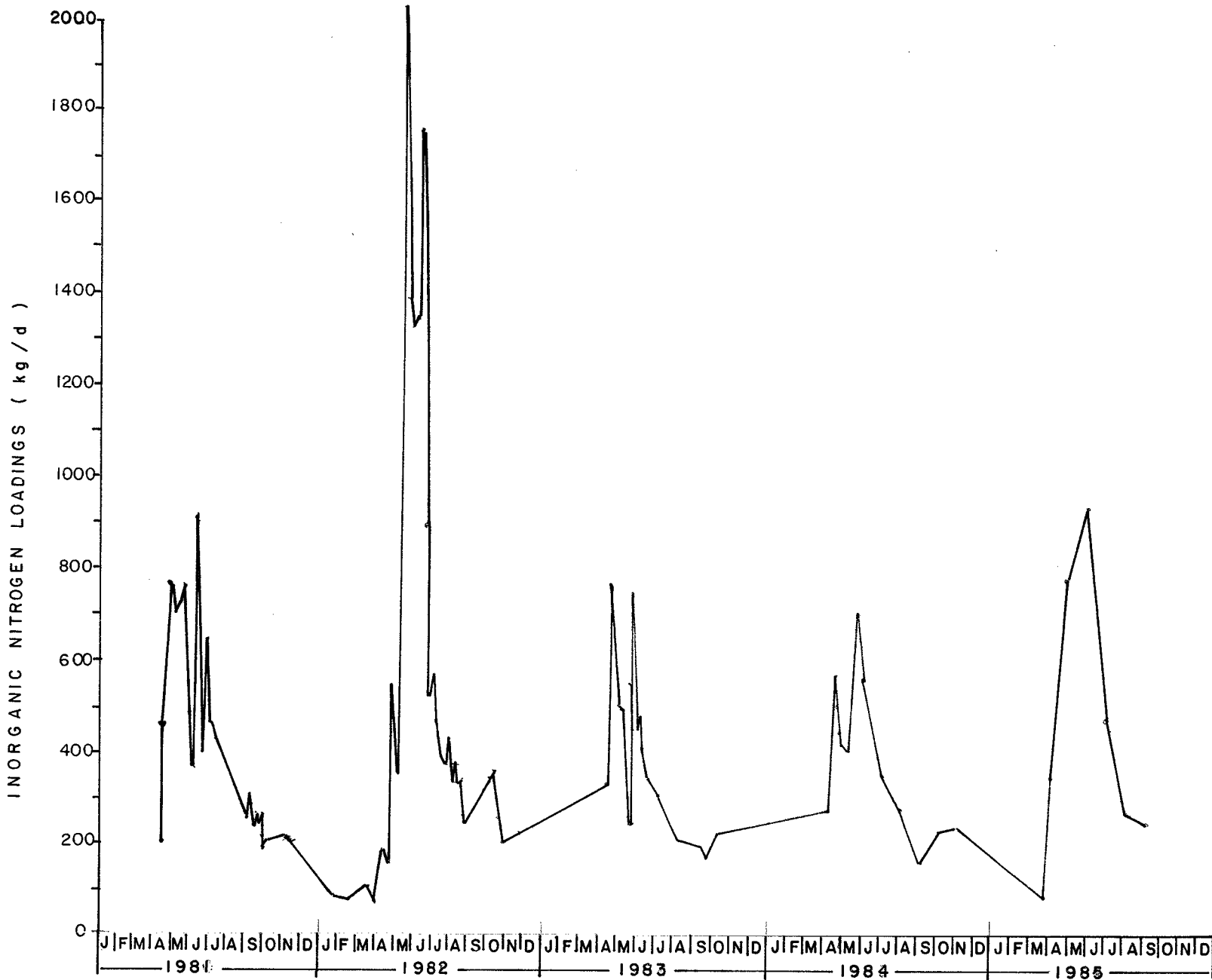


FIGURE 4 INORGANIC NITROGEN LOADINGS FORDING RIVER DOWNSTREAM OF OPERATIONS (FR 4) - 1981 - 1985

**TABLE 1** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING RIVER  
UPSTREAM OF MINESITE (FR 1)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 81 04 22 | FCL    | < 0.01                                     | < 0.01                    | < 0.01                    | 0.21                     | 1.40                        | 25.4                             |
| 81 10 05 | FCL    | < 0.01                                     | 0.018                     | < 0.003                   | 0.031                    | 0.580                       | 1.55                             |
| 81 11 04 | FCL    | 0.3                                        | < 0.01                    | < 0.01                    | 0.41                     | 0.375                       | 13.3                             |
| 81 12 08 | FCL    | < 0.01                                     | 0.069                     | < 0.003                   | 0.172                    | 0.263                       | 0.176                            |
| 82 01 27 | FCL    | 0.01                                       | 0.037                     | < 0.003                   | 0.05                     | 0.135                       | 0.58                             |
| 82 02 17 | FCL    | < 0.01                                     | 0.067                     | < 0.003                   | 0.08                     | 0.139                       | 0.077                            |
| 82 03 04 | FCL    | 0.01                                       |                           |                           |                          |                             |                                  |
| 82 03 09 | FCL    | < 0.01                                     |                           |                           |                          |                             |                                  |
| 82 03 16 | FCL    | 0.01                                       | 0.041                     | < 0.003                   | 0.054                    | 0.124                       | 0.58                             |
| 82 03 23 | FCL    | 0.04                                       | 0.337                     | 0.003                     | 0.38                     | 0.124                       | 4.07                             |
| 82 03 30 | FCL    | 0.13                                       | 0.325                     | 0.003                     | 0.458                    | 0.147                       | 5.82                             |
| 82 04 27 | FCL    | < 0.05                                     | < 0.01                    | < 0.001                   | 0.061                    | 1.28                        | 0.53                             |
| 82 06 01 | FCL    | 0.01                                       | 0.02                      | 0.003                     | 0.033                    | 4.78                        | 13.6                             |
| 82 06 08 | FCL    | < 0.01                                     | < 0.05                    | 0.003                     | 0.063                    | 5.51                        | 29.9                             |
| 82 06 22 | FCL    | 0.02                                       | < 0.05                    | < 0.003                   | 0.073                    | 7.97                        | 50.3                             |
| 82 08 10 | FCL    | 0.12                                       | < 0.010                   | < 0.002                   | 0.132                    | 0.852                       | 9.72                             |
| 82 09 21 | FCL    | 0.05                                       | 0.052                     | < 0.002                   | 0.104                    | 0.645                       | 5.80                             |
| 82 11 23 | FCL    | 0.13                                       | < 0.01                    | < 0.002                   | 0.142                    | 0.275                       | 3.37                             |
| 83 05 19 | FCL    | 0.02                                       | 0.005                     | < 0.003                   | 0.028                    | 2.94                        | 7.11                             |
| 83 06 07 | FCL    | 0.01                                       | 0.025                     | 0.003                     | 0.038                    | 6.60                        | 21.7                             |
| 83 07 12 | FCL    | 0.01                                       | 0.10                      | < 0.003                   | 0.113                    | 2.31                        | 22.6                             |
| 83 08 05 | FCL    | 0.01                                       | 0.008                     | < 0.003                   | 0.021                    | 0.934                       | 1.69                             |
| 83 09 16 | FCL    | < 0.01                                     | 0.024                     | 0.003                     | 0.037                    | 0.464                       | 1.48                             |
| 83 10 06 | FCL    | < 0.01                                     | 0.038                     | 0.003                     | 0.051                    | 0.380a                      | 1.67                             |
| 83 11 01 | FCL    | < 0.01                                     | 0.030                     | 0.003                     | 0.043                    | 0.288a                      | 1.07                             |
| 84 05 01 | FCL    | < 0.01                                     | 0.106                     | < 0.003                   | 0.119                    | 0.809                       | 8.32                             |
| 84 06 05 | FCL    | 0.04                                       | 0.022                     | < 0.003                   | 0.065                    | 5.21                        | 29.26                            |
| 84 07 03 | FCL    | < 0.01                                     | 0.003                     | < 0.003                   | 0.016                    | 3.28                        | 4.53                             |
| 84 08 07 | FCL    | < 0.01                                     | 0.004                     | < 0.003                   | 0.017                    | 0.956                       | 1.40                             |
| 84 09 04 | FCL    | 0.04                                       | 0.003                     | < 0.003                   | 0.046                    | 0.447                       | 1.78                             |
| 84 10 01 | FCL    | 0.03                                       | 0.043                     | < 0.003                   | 0.076                    | 0.515                       | 3.38                             |
| 84 11 06 | FCL    | 0.03                                       | 0.083                     | < 0.003                   | 0.116                    | 0.344                       | 3.45                             |
| 85 04 02 | FCL    | 0.12                                       | 0.056                     | 0.003                     | 0.179                    | 0.340                       | 5.26                             |
| 85 05 07 | FCL    | 0.02                                       | 0.014                     | < 0.003                   | 0.037                    | 4.24                        | 13.55                            |
| 85 06 04 | FCL    | 0.01                                       | < 0.003                   | < 0.003                   | 0.016                    | 4.65                        | 6.43                             |
| 85 07 02 | FCL    | 0.02                                       | 0.003                     | < 0.003                   | 0.026                    | 2.18                        | 4.92                             |
| 85 08 06 | FCL    | < 0.01                                     | 0.005                     | < 0.003                   | 0.018                    | 0.624                       | 0.970                            |
| 85 09 03 | FCL    | 0.02                                       | 0.015                     | 0.005                     | 0.04                     | 0.685                       | 2.37                             |

**TABLE 2** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING RIVER COAL  
- KILMARNOCK CREEK AT MINE ROAD CULVERT (Downstream site XC1)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 03 01 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 83 03 15 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 83 03 22 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 83 04 12 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 83 05 17 | FCL    | < 0.01                                     | 0.054                     | < 0.003                   |                          |                             |                                  |
| 83 06 07 | FCL    | < 0.01                                     | 0.042                     | < 0.003                   |                          |                             |                                  |
| 83 07 12 | FCL    | 0.01                                       | 0.066                     | < 0.003                   | 0.079                    |                             |                                  |
| 83 08 05 | FCL    | 0.01                                       | 0.076                     | < 0.003                   | 0.089                    |                             |                                  |
| 83 09 16 | FCL    | < 0.01                                     | 0.143                     | 0.008                     | 0.161                    |                             |                                  |
| 83 10 06 | FCL    | < 0.01                                     | 0.182                     | 0.003                     | 0.195                    |                             |                                  |
| 83 11 01 | FCL    | 0.01                                       | 0.135                     | 0.005                     | 0.150                    |                             |                                  |
| 83 12 01 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 01 10 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 02 08 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 03 12 | FCL    | 0.001                                      | 0.169                     | < 0.003                   | 0.173                    |                             |                                  |
| 84 03 20 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 03 27 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 03 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 04 09 | FCL    | 0.16                                       | 0.68                      | < 0.003                   | 0.843                    |                             |                                  |
| 84 05 01 | FCL    | 0.01                                       | 0.28                      | < 0.003                   | 0.293                    | 0.154                       | 3.90                             |
| 84 06 05 | FCL    | 0.02                                       | 0.097                     | < 0.003                   | 0.12                     | 1.77                        | 18.35                            |
| 84 07 03 | FCL    | < 0.01                                     | 0.054                     | 0.008                     | 0.072                    | 0.974                       | 6.06                             |
| 84 08 07 | FCL    | 0.01                                       | 0.172                     | < 0.003                   | 0.185                    | 0.128                       | 2.05                             |
| 84 09 04 | FCL    | < 0.01                                     | 0.33                      | < 0.003                   | 0.343                    | 0.051                       | 1.51                             |
| 84 10 01 | FCL    | 0.04                                       | 0.48                      | < 0.003                   | 0.523                    | 0.080                       | 3.61                             |
| 84 11 06 | FCL    | < 0.01                                     | 0.41                      | 0.003                     | 0.423                    |                             |                                  |
| 84 12 04 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 01 09 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 02 11 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 03 18 | FCL    | 0.03                                       | 0.87                      | < 0.003                   | 0.903                    |                             |                                  |
| 85 03 25 | FCL    |                                            |                           |                           |                          |                             |                                  |
| 85 04 02 | FCL    | 0.07                                       | 0.74                      | < 0.003                   | 0.813                    | 0.497                       | 34.90                            |
| 85 05 07 | FCL    | < 0.01                                     | 0.42                      | 0.003                     | 0.433                    | 0.729                       | 27.3                             |
| 85 06 04 | FCL    | < 0.01                                     | 0.089                     | < 0.003                   | 0.102                    | 0.757                       | 6.67                             |
| 85 07 02 | FCL    | 0.04                                       | 0.107                     | 0.003                     | 0.15                     | 0.659                       | 8.5                              |
| 85 08 06 | FCL    | 0.02                                       | 0.148                     | < 0.003                   | 0.171                    | 0.569                       | 8.4                              |
| 85 09 03 | FCL    | 0.03                                       | 0.23                      | 0.008                     | 0.268                    | 0.589                       | 13.6                             |
| 85 10 01 | FCL    | 0.01                                       | 0.48                      | < 0.003                   | 0.493                    | 0.623                       | 26.5                             |
| 85 11 05 | FCL    | 0.01                                       | 0.91                      | < 0.003                   | 0.923                    |                             |                                  |

**TABLE 3** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- SWIFT CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 82 01 27 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 82 02 17 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 82 03 04 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 82 03 09 | FCL    | 0.04                                       | 30.4                      | 0.16                      | 30.5                     | 0.009                       | 24.4                             |
| 82 03 16 | FCL    |                                            |                           |                           |                          | 0.009                       |                                  |
| 82 03 23 | FCL    |                                            |                           |                           |                          | 0.009                       |                                  |
| 82 03 30 | FCL    |                                            |                           |                           |                          | 0.013                       |                                  |
| 82 04 06 | FCL    | 0.01                                       | 46.5                      | 0.036                     | 46.55                    | 0.015                       | 61.67                            |
| 82 04 13 | FCL    |                                            |                           |                           |                          | 0.067                       |                                  |
| 82 04 20 | FCL    | 0.01                                       | 10.5                      | 0.024                     | 10.53                    | 0.041                       | 37.55                            |
| 82 04 27 | FCL    | 0.06                                       | 6.60                      | 0.021                     | 6.68                     | 0.142                       | 81.78                            |
| 82 05 05 | FCL    | < 0.01                                     | 0.595                     | 0.015                     | 0.62                     | 0.213                       | 11.4                             |
| 82 05 11 | FCL    | 0.01                                       | 0.40                      | 0.06                      | 0.47                     | 0.215                       | 8.74                             |
| 82 05 19 | FCL    | 0.03                                       | 0.22                      | 0.007                     | 0.257                    | 0.508                       | 11.28                            |
| 82 05 25 | FCL    | 0.03                                       | 0.12                      | 0.019                     | 0.169                    | 1.702                       | 24.86                            |
| 82 06 01 | FCL    | 0.01                                       | 0.26                      | 0.008                     | 0.278                    | 0.573                       | 13.76                            |
| 82 06 09 | FCL    | < 0.01                                     | 0.32                      | 0.006                     | 0.336                    | 0.534                       | 15.49                            |
| 82 06 16 | FCL    | 0.01                                       | < 0.05                    | 0.006                     | 0.066                    | 0.516                       | 2.94                             |
| 82 06 24 | FCL    | 0.01                                       | 0.13                      | 0.004                     | 0.144                    | 0.741                       | 9.21                             |
| 82 06 30 | FCL    | 0.05                                       | 0.23                      | 0.004                     | 0.284                    | 0.382                       | 9.37                             |
| 82 07 07 | FCL    | < 0.01                                     | 0.46                      | 0.006                     | 0.476                    | 0.260                       | 10.71                            |
| 82 07 14 | FCL    | 0.02                                       | 0.62                      | 0.009                     | 0.649                    | 0.137                       | 7.70                             |
| 82 07 21 | FCL    | 0.01                                       | 0.80                      | 0.005                     | 0.818                    | 0.040                       | 2.79                             |
| 82 07 28 | FCL    | < 0.01                                     | 0.80                      | 0.008                     | 0.818                    | 0.020                       | 1.42                             |
| 82 08 05 | FCL    | < 0.01                                     | 0.52                      | 0.018                     | 0.548                    | 0.018                       | 0.86                             |
| 82 08 10 | FCL    |                                            |                           |                           |                          | 0.013                       |                                  |
| 82 08 17 | FCL    |                                            |                           |                           |                          | --                          |                                  |
| 82 08 24 | FCL    |                                            |                           |                           |                          | 0.027                       |                                  |
| 82 08 31 | FCL    |                                            |                           |                           |                          | 0.025                       |                                  |
| 82 09 07 | FCL    |                                            |                           |                           |                          | 0.025                       |                                  |
| 82 09 14 | FCL    |                                            |                           |                           |                          | 0.014                       |                                  |
| 82 09 21 | FCL    |                                            |                           |                           |                          | 0.012                       |                                  |
| 82 09 28 | FCL    |                                            |                           |                           |                          | 0.025                       |                                  |
| 82 10 05 | FCL    |                                            |                           |                           |                          | 0.012                       |                                  |
| 82 10 12 | FCL    |                                            |                           |                           |                          | --                          |                                  |
| 82 10 19 | FCL    |                                            |                           |                           |                          | 0.016                       |                                  |

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**TABLE 3** (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 82 10 26 | FCL    |                                            |                           |                           |                          | 0.017                       |                                  |
| 82 11 09 | FCL    |                                            |                           |                           |                          | 0.016                       |                                  |
| 82 11 23 | FCL    |                                            |                           |                           |                          | 0.014                       |                                  |
| 83 03 01 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 83 03 15 | FCL    |                                            |                           |                           |                          | 0.001                       |                                  |
| 83 03 22 | FCL    |                                            |                           |                           |                          | 0.001                       |                                  |
| 83 04 12 | FCL    |                                            |                           |                           |                          | 0.012                       |                                  |
| 83 04 19 | FCL    |                                            |                           |                           |                          | 0.042                       |                                  |
| 83 04 26 | FCL    |                                            |                           |                           |                          | 0.071                       |                                  |
| 83 05 03 | FCL    |                                            |                           |                           |                          | 0.097                       |                                  |
| 83 05 10 | FCL    |                                            |                           |                           |                          | 0.128                       |                                  |
| 83 05 17 | FCL    |                                            |                           |                           |                          | 0.164                       |                                  |
| 83 05 24 | FCL    |                                            |                           |                           |                          | 0.556                       |                                  |
| 83 05 31 | FCL    |                                            |                           |                           |                          | 0.712                       |                                  |
| 83 06 07 | FCL    | < 0.01                                     | 0.43                      | 0.003                     | 0.443                    | 0.292                       | 11.16                            |
| 83 06 14 | FCL    | 0.01                                       | 0.69                      | 0.004                     | 0.704                    | 0.174                       | 10.56                            |
| 83 06 21 | FCL    | 0.01                                       | 1.04                      | 0.005                     | 1.055                    | 0.145                       | 13.19                            |
| 83 06 28 | FCL    |                                            |                           |                           |                          | 0.064                       |                                  |
| 83 07 12 | FCL    | 0.01                                       | 1.6                       | 0.006                     | 1.62                     | 0.065                       | 9.05                             |
| 83 08 05 | FCL    | 0.01                                       | 3.29                      | 0.007                     | 3.32                     | 0.032                       | 9.30                             |
| 83 09 16 | FCL    | < 0.01                                     | 5.29                      | 0.007                     | 5.307                    | 0.009                       | 3.98                             |
| 83 10 06 | FCL    | < 0.01                                     | 4.60                      | 0.003                     | 4.613                    | 0.012                       | 4.61                             |
| 83 11 01 | FCL    | < 0.01                                     | 4.25                      | 0.003                     | 4.263                    | 0.014                       | 5.12                             |
| 83 12 01 | FCL    | < 0.01                                     | 4.25                      | 0.003                     | 4.263                    | 0.006                       | 2.13                             |
| 84 01 10 | FCL    | 0.01                                       | 31.5                      | 0.005                     | 31.52                    | 0.002                       | 6.30                             |
| 84 02 08 | FCL    | < 0.01                                     | 10.8                      | 0.003                     | 10.813                   | 0.001                       | 1.08                             |
| 84 03 12 | FCL    | < 0.01                                     | 26.5                      | 0.012                     | 26.52                    | 0.006                       | 13.26                            |
| 84 03 20 | FCL    |                                            |                           |                           |                          | 0.012                       |                                  |
| 84 03 27 | FCL    |                                            |                           |                           |                          | 0.025                       |                                  |
| 84 04 03 | FCL    | < 0.01                                     | 1.34                      | 0.003                     | 1.353                    | 0.025                       | 2.94                             |
| 84 04 09 | FCL    | < 0.01                                     | 1.79                      | < 0.003                   | 1.803                    | 0.037                       | 5.77                             |
| 84 04 17 | FCL    | 0.01                                       | 2.49                      | 0.008                     | 2.508                    | 0.041                       | 8.78                             |
| 84 04 24 | FCL    | < 0.01                                     | 1.23                      | 0.003                     | 1.24                     | 0.073                       | 7.83                             |
| 84 05 01 | FCL    | 0.02                                       | 2.79                      | 0.007                     | 2.82                     | 0.042                       | 10.14                            |
| 84 05 09 | FCL    | 0.01                                       | 1.53                      | 0.003                     | 1.54                     | 0.044                       | 5.86                             |

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TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 05 15 | FCL    | < 0.01                                     | 1.36                      | 0.004                     | 1.374                    | 0.108                       | 12.78                            |
| 84 05 22 | FCL    | < 0.01                                     | 0.34                      | 0.004                     | 0.354                    | 0.178                       | 5.45                             |
| 84 05 29 | FCL    |                                            | 0.60                      | 0.004                     | 0.604                    | 0.154                       | 8.03                             |
| 84 06 05 | FCL    | 0.02                                       | 0.43                      | 0.003                     | 0.453                    | 0.271                       | 10.60                            |
| 84 06 13 | FCL    |                                            |                           |                           |                          | 0.280                       |                                  |
| 84 06 15 | FCL    |                                            |                           |                           |                          | --                          |                                  |
| 84 06 19 | FCL    |                                            |                           |                           |                          | 0.189                       |                                  |
| 84 06 26 | FCL    |                                            |                           |                           |                          | 0.123                       |                                  |
| 84 07 03 | FCL    | < 0.02                                     | 2.21                      | 0.014                     | 2.24                     | 0.015                       | 2.92                             |
| 84 07 10 | FCL    |                                            |                           |                           |                          | 0.064                       |                                  |
| 84 08 07 | FCL    | 0.02                                       | 7.81                      | 0.007                     | 7.84                     | 0.011                       | 7.45                             |
| 84 09 04 | FCL    | 0.04                                       | 10.7                      | 0.006                     | 10.746                   | 0.009                       | 8.60                             |
| 84 10 01 | FCL    | 0.02                                       | 9.20                      | 0.004                     | 9.224                    | 0.005                       | 3.78                             |
| 84 11 06 | FCL    | < 0.01                                     | 7.60                      | < 0.003                   | 7.613                    | 0.003                       | 2.06                             |
| 84 12 04 | FCL    | < 0.01                                     | 6.75                      | 0.004                     | 6.764                    | 0.003                       | 1.69                             |
| 85 01 09 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 02 11 | FCL    | 0.02                                       | 12.7                      | 0.041                     | 12.76                    | 0.007                       | 7.66                             |
| 85 03 18 | FCL    | 0.03                                       | 6.3                       | 0.007                     | 6.34                     | 0.060                       | 32.95                            |
| 85 03 25 | FCL    |                                            |                           |                           |                          | 0.035                       |                                  |
| 85 04 02 | FCL    | 0.09                                       | 4.3                       | 0.004                     | 4.394                    | 0.006                       | 2.20                             |
| 85 04 09 | FCL    |                                            |                           |                           |                          | 0.012                       |                                  |
| 85 04 16 | FCL    |                                            |                           |                           |                          | 0.061                       |                                  |
| 85 04 23 | FCL    |                                            |                           |                           |                          | 0.053                       |                                  |
| 85 04 29 | FCL    |                                            |                           |                           |                          | 0.067                       |                                  |
| 85 05 07 | FCL    | 0.01                                       | 1.03                      | < 0.003                   | 1.043                    | 0.171                       | 15.44                            |
| 85 05 14 | FCL    |                                            |                           |                           |                          | 0.171                       |                                  |
| 85 05 21 | FCL    |                                            |                           |                           |                          | 0.503                       |                                  |
| 85 05 28 | FCL    |                                            |                           |                           |                          | 0.320                       |                                  |
| 85 06 04 | FCL    | < 0.01                                     | 0.51                      | < 0.003                   | 0.523                    | 0.178                       | 8.05                             |
| 85 06 11 | FCL    |                                            |                           |                           |                          | 0.159                       |                                  |
| 85 06 18 | FCL    |                                            |                           |                           |                          | 0.091                       |                                  |
| 85 06 25 | FCL    |                                            |                           |                           |                          | 0.056                       |                                  |
| 85 07 02 | FCL    | 0.02                                       | 2.02                      | 0.003                     | 2.043                    | 0.046                       | 8.13                             |
| 85 07 09 | FCL    |                                            |                           |                           |                          | 0.030                       |                                  |
| 85 08 06 | FCL    | < 0.01                                     | 7.89                      | 0.006                     | 7.91                     | 0.015                       | 10.28                            |
| 85 09 03 | FCL    | 0.04                                       | 11.5                      | 0.010                     | 11.55                    | 0.010                       | 9.93                             |
| 85 10 01 | FCL    | 0.01                                       | 3.90                      | < 0.003                   | 3.913                    | 0.002                       | 7.83                             |
| 85 11 05 | FCL    | 0.01                                       | 2.40                      | < 0.003                   | 2.413                    | 0.030                       | 6.27                             |

**TABLE 4** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- EAGLE CREEK POND SUPERNATANT

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 81 06 02 | FCL    | < 0.01                                     | 44                        | 10                        | 54.1                     |                             |                                  |
| 81 11 04 | FCL    | < 0.01                                     | 140                       | 0.12                      | 140.22                   |                             |                                  |
| 82 03 04 | FCL    | 0.29                                       | 120.0                     | 0.57                      | 120.86                   |                             |                                  |
| 82 04 06 | FCL    | 0.08                                       | 50.9                      | 0.061                     | 51.041                   |                             |                                  |
| 82 04 20 | FCL    | 0.03                                       | 36.0                      | 0.035                     | 36.065                   |                             |                                  |
| 82 04 27 | FCL    | < 0.050                                    | 21.0                      | 0.065                     | 21.115                   |                             |                                  |
| 82 06 15 | FCL    | 0.22                                       | 9.15                      | 0.22                      | 9.59                     |                             |                                  |
| 82 08 10 | FCL    | 0.25                                       | 194                       | 0.10                      | 194.35                   |                             |                                  |
| 82 09 21 | FCL    | < 0.050                                    | 220                       | 0.15                      | 220.2                    |                             |                                  |
| 82 10 08 | FCL    |                                            | 187                       |                           | 187                      |                             |                                  |
| 82 11 23 | FCL    | 0.34                                       | 168                       | 0.094                     | 168.434                  |                             |                                  |
| 83 04 29 | FCL    | 0.02                                       | 108                       | 0.160                     | 108.18                   |                             |                                  |
| 83 06 07 | FCL    | 0.09                                       | 175                       | 0.20                      | 175.29                   |                             |                                  |
| 83 07 12 | FCL    | 0.04                                       | 188                       | 0.165                     | 188.205                  |                             |                                  |
| 83 08 05 | FCL    | 0.05                                       | 220                       | 0.20                      | 220.25                   |                             |                                  |
| 85 04 02 | FCL    | 0.04                                       | 162                       | 0.067                     | 162.107                  |                             |                                  |
| 85 05 21 | FCL    | 0.01                                       | 47.9                      | 0.085                     | 47.995                   |                             |                                  |
| 85 07 02 | FCL    | 0.03                                       | 158                       | 0.17                      | 158.2                    |                             |                                  |

**TABLE 5** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- CLODE POND SEEPAGE - SOUTH AREA

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 81 04 24 | FCL    | 2.4                                        | 21.0                      | 0.01                      | 23.41                    | 0.048av                     | 97.1                             |
| 81 06 02 | FCL    | < 0.1                                      | 4.0                       | 0.01                      | 4.11                     | 0.048av                     | 70.1                             |
| 81 07 14 | FCL    | < 0.1                                      | 9.5                       | 0.02                      | 9.62                     | 0.048av                     | 39.9                             |
| 81 11 04 | FCL    | < 0.1                                      | 3.4                       | 0.01                      | 3.51                     | 0.048av                     | 51.1                             |
| 82 03 04 | FCL    | 0.03                                       | 3.27                      | 0.13                      | 3.43                     | 0.048av                     | 14.2                             |
| 82 06 15 | FCL    | 0.12                                       | 3.94                      | < 0.001                   | 4.06                     | 0.048av                     | 16.8                             |
| 82 08 10 | FCL    | 0.028                                      | 3.08                      | < 0.002                   | 3.11                     | 0.048av                     | 12.9                             |
| 82 09 21 | FCL    | < 0.05                                     | 2.15                      | < 0.002                   | 2.20                     | 0.048av                     | 9.1                              |
| 82 11 23 | FCL    | 0.16                                       | 0.49                      | < 0.002                   | 0.652                    | 0.048av                     | 2.7                              |

av - average

**TABLE 6** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- CLODE CREEK POND SEEPAGE - SOUTHWEST CORNER

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 81 04 24 | FCL    | 0.2                                        | 9.2                       | 0.01                      | 9.41                     | 0.076                       | 62.0                             |
| 81 06 02 | FCL    | < 0.1                                      | 2.1                       | < 0.01                    | 2.21                     | 0.076                       | 14.5                             |
| 81 07 14 | FCL    | < 0.1                                      | 2.5                       | < 0.01                    | 2.61                     | 0.076                       | 17.1                             |
| 81 11 04 | FCL    | 0.1                                        | 1.3                       | < 0.01                    | 1.41                     | 0.076                       | 9.3                              |
| 82 03 04 | FCL    | 0.01                                       | 2.65                      | 0.15                      | 2.81                     | 0.076                       | 18.5                             |
| 82 04 27 | FCL    | 0.13                                       | 5.14                      | 0.001                     | 5.271                    | 0.076                       | 34.6                             |
| 82 06 06 | FCL    | 0.12                                       | 0.023                     | 0.001                     | 0.264                    | 0.076                       | 1.7                              |
| 82 08 10 | FCL    | 0.032                                      | 1.59                      | 0.002                     | 1.624                    | 0.076                       | 10.7                             |
| 82 09 21 | FCL    | < 0.05                                     | 2.15                      | < 0.002                   | 2.252                    | 0.076                       | 14.8                             |
| 82 11 23 | FCL    | 0.19                                       | 0.93                      | < 0.002                   | 1.122                    | 0.076                       | 7.4                              |

**TABLE 7** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- KILMARNOCK CREEK, UPSTREAM OF BROWNIE CREEK (Upstream station KC4)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 06 07 | FCL    | < 0.01                                     | 0.069                     | < 0.003                   | 0.082                    |                             |                                  |
| 83 10 06 | FCL    | < 0.01                                     | 0.080                     | 0.004                     | 0.094                    |                             |                                  |
| 83 11 01 | FCL    | < 0.01                                     | 0.073                     | 0.003                     | 0.086                    |                             |                                  |
| 83 12 01 | FCL    | 0.02                                       | 0.147                     | 0.003                     | 0.170                    |                             |                                  |
| 84 01 10 | FCL    | 0.02                                       | 0.126                     | < 0.003                   | 0.149                    |                             |                                  |
| 84 02 08 | FCL    | < 0.01                                     | 0.190                     | 0.003                     | 0.203                    |                             |                                  |
| 84 03 12 | FCL    | 0.02                                       | 0.133                     | < 0.003                   | 0.156                    |                             |                                  |
| 84 03 27 | FCL    | < 0.01                                     | 0.38                      | < 0.002                   | 0.392                    |                             |                                  |
| 84 05 01 | FCL    | < 0.01                                     | 0.06                      | < 0.003                   | 0.073                    | 0.154                       | 0.97                             |
| 84 06 05 | FCL    | 0.03                                       | 0.077                     | < 0.003                   | 0.11                     | 1.77                        | 16.8                             |
| 84 07 03 | FCL    | < 0.01                                     | 0.005                     | 0.003                     | 0.018                    | 0.974                       | 1.51                             |
| 84 08 07 | FCL    | < 0.01                                     | 0.033                     | < 0.003                   | 0.046                    | 0.128                       | 0.51                             |
| 84 09 04 | FCL    | < 0.01                                     | 0.009                     | < 0.003                   | 0.022                    | 0.051                       | 0.10                             |
| 84 10 01 | FCL    | 0.03                                       | 0.099                     | < 0.003                   | 0.132                    | 0.080                       | 0.912                            |
| 84 11 06 | FCL    | < 0.01                                     | 0.136                     | < 0.003                   | 0.149                    |                             |                                  |
| 84 12 04 | FCL    | < 0.01                                     | 0.140                     | < 0.003                   | 0.153                    |                             |                                  |
| 85 01 09 | FCL    | 0.01                                       | 0.197                     | 0.003                     | 0.21                     |                             |                                  |
| 85 02 11 | FCL    | 0.01                                       | 0.186                     | 0.004                     | 0.20                     |                             |                                  |
| 85 03 18 | FCL    | 0.04                                       | 0.138                     | < 0.003                   | 0.221                    |                             |                                  |
| 85 04 02 | FCL    | 0.07                                       | 0.127                     | < 0.003                   | 0.2                      | 0.514                       | 8.88                             |
| 85 05 07 | FCL    | < 0.01                                     | 0.082                     | < 0.003                   | 0.095                    | 0.729                       | 5.98                             |
| 85 06 04 | FCL    | 0.04                                       | 0.021                     | < 0.003                   | 0.064                    | 0.757                       | 4.19                             |
| 85 07 02 | FCL    | 0.03                                       | 0.007                     | 0.003                     | 0.04                     | 0.659                       | 2.28                             |
| 85 08 06 | FCL    | 0.01                                       | 0.013                     | < 0.003                   | 0.026                    | 0.569                       | 1.28                             |
| 85 09 03 | FCL    | 0.03                                       | 0.017                     | 0.006                     | 0.053                    | 0.589                       | 2.70                             |
| 85 10 01 | FCL    | < 0.01                                     | 0.069                     | < 0.003                   | 0.082                    | 0.623                       | 4.41                             |
| 85 11 05 | FCL    | < 0.01                                     | 0.069                     | < 0.003                   | 0.082                    |                             |                                  |

**TABLE 8** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- CLODE CREEK POND DECANT

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/l) | NO <sub>3</sub><br>(mg/l) | NO <sub>2</sub><br>(mg/l) | INORGANIC<br>N<br>(mg/l) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 01 10 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 02 08 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 03 12 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 84 03 20 | FCL    |                                            |                           |                           |                          | 0.01                        |                                  |
| 84 03 27 | FCL    |                                            |                           |                           |                          | 0.004                       |                                  |
| 84 04 03 | FCL    | < 0.01                                     | 0.32                      | 0.004                     | 0.334                    | 0.009                       | 0.267                            |
| 84 04 09 | FCL    |                                            |                           |                           |                          | 0.067                       |                                  |
| 84 04 17 | FCL    |                                            |                           |                           |                          | 0.345                       |                                  |
| 84 04 24 | FCL    |                                            |                           |                           |                          | 0.185                       |                                  |
| 84 05 01 | FCL    | 0.14                                       | 5.73                      | 0.023                     | 5.89                     | 0.099                       | 50.68                            |
| 84 05 09 | FCL    | 0.18                                       | 4.38                      | 0.016                     | 4.58                     | 0.110                       | 43.47                            |
| 84 05 15 | FCL    |                                            |                           |                           |                          | 0.216                       |                                  |
| 84 05 22 | FCL    |                                            |                           |                           |                          | 0.233                       |                                  |
| 84 05 29 | FCL    | 0.08                                       | 5.92                      | 0.03                      | 6.03                     | 0.002                       | 77.18                            |
| 84 06 05 | FCL    | 0.08                                       | 4.48                      | 0.018                     | 4.578                    | 0.189                       | 74.62                            |
| 84 06 13 | FCL    |                                            |                           |                           |                          | 0.212                       |                                  |
| 84 06 19 | FCL    |                                            |                           |                           |                          | 0.176                       |                                  |
| 84 06 26 | FCL    |                                            |                           |                           |                          | 0.176                       |                                  |
| 84 07 03 | FCL    | < 0.01                                     | 5.12                      | 0.029                     | 5.159                    | 0.112                       | 50.04                            |
| 84 07 10 | FCL    |                                            |                           |                           |                          | 0.093                       |                                  |
| 84 08 07 | FCL    | 0.02                                       | 3.43                      | 0.021                     | 3.471                    | 0.058                       | 17.36                            |
| 84 09 04 | FCL    | < 0.01                                     | 2.17                      | 0.028                     | 2.208                    | 0.035                       | 6.62                             |
| 84 10 01 | FCL    | 0.03                                       | 4.07                      | 0.031                     | 4.131                    | 0.056                       | 19.95                            |
| 84 11 06 | FCL    | 0.03                                       | 1.79                      | 0.008                     | 1.828                    | 0.023                       | 3.69                             |
| 84 12 04 | FCL    | < 0.01                                     | 0.80                      | 0.003                     | 0.813                    | 0.026                       | 1.82                             |
| 85 01 09 | FCL    | < 0.01                                     | 0.165                     | < 0.003                   | 0.178                    | 0.010                       | 0.154                            |
| 85 02 11 | FCL    |                                            |                           |                           |                          | No Flow                     |                                  |
| 85 03 18 | FCL    | 0.07                                       | 5.39                      | 0.010                     | 5.47                     | 0.027                       | 12.76                            |
| 85 03 25 | FCL    |                                            |                           |                           |                          | 0.036                       |                                  |
| 85 04 02 | FCL    | 0.14                                       | 2.99                      | 0.011                     | 3.14                     | 0.096                       | 26.04                            |
| 85 04 09 | FCL    |                                            |                           |                           |                          | 0.098                       |                                  |
| 85 04 23 | FCL    |                                            |                           |                           |                          | 0.208                       |                                  |
| 85 04 29 | FCL    |                                            |                           |                           |                          | 0.132                       |                                  |
| 85 04 29 | FCL    |                                            |                           |                           |                          | 0.165                       |                                  |
| 85 05 07 | FCL    | 0.07                                       | 5.99                      | 0.011                     | 6.071                    | 0.258                       | 135.14                           |
| 85 05 14 | FCL    |                                            |                           |                           |                          | 0.183                       |                                  |

CONTINUED...

TABLE 8 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 85 05 21 | FCL    |                                            |                           |                           |                          | 0.295                       |                                  |
| 85 05 28 | FCL    |                                            |                           |                           |                          | 0.156                       |                                  |
| 85 06 04 | FCL    | 0.02                                       | 5.98                      | 0.015                     | 6.015                    | 0.160                       | 83.16                            |
| 85 06 11 | FCL    |                                            |                           |                           |                          | 0.120                       |                                  |
| 85 06 18 | FCL    |                                            |                           |                           |                          | 0.118                       |                                  |
| 85 06 25 | FCL    |                                            |                           |                           |                          | 0.080                       |                                  |
| 85 07 02 | FCL    | 0.02                                       | 4.48                      | 0.024                     | 4.524                    | 0.080                       | 31.26                            |
| 85 07 04 | FCL    |                                            |                           |                           |                          | 0.036                       |                                  |
| 85 08 06 | FCL    | < 0.01                                     | 3.29                      | 0.026                     | 3.326                    | 0.029                       | 8.33                             |
| 85 09 03 | FCL    | 0.03                                       | 3.01                      | 0.035                     | 3.075                    | 0.029                       | 7.69                             |
| 85 10 01 | FCL    | 0.01                                       | 4.75                      | 0.027                     | 4.787                    | 0.080                       | 33.08                            |
| 85 11 05 | FCL    | 0.01                                       | 1.97                      | 0.008                     | 3.968                    | 0.060                       | 20.63                            |



**TABLE 9** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- FORDING RIVER UPSTREAM OF KILMARNOCK CREEK (FR2)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 83 07 12 | FCL    | 0.01                                       | 1.62                      | 0.003                     | 1.63                     | 2.31                        | 325.3                            |
| 83 08 05 | FCL    | 0.03                                       | 2.60                      | 0.004                     | 2.63                     | 0.934                       | 212.56                           |
| 83 09 16 | FCL    | < 0.01                                     | 3.99                      | 0.012                     | 4.01                     | 0.464                       | 160.84                           |
| 83 10 06 | FCL    | 0.04                                       | 5.29                      | 0.007                     | 5.34                     | 0.380a                      | 175.2                            |
| 83 11 01 | FCL    | 0.09                                       | 5.79                      | 0.006                     | 5.89                     | 0.288a                      | 146.46                           |
| 83 12 01 | FCL    | 0.11                                       | 12.7                      | 0.010                     | 12.82                    | 0.146a                      | 161.72                           |
| 84 01 10 | FCL    | 0.08                                       | 11.10                     | 0.011                     | 11.19                    | 0.180                       | 174.0                            |
| 84 02 08 | FCL    | 0.06                                       | 9.60                      | 0.014                     | 9.67                     | 0.138                       | 115.34                           |
| 84 03 12 | FCL    | 0.12                                       | 12.50                     | 0.023                     | 12.64                    | 0.164                       | 179.15                           |
| 84 03 20 | FCL    | 0.03                                       | 7.29                      | 0.016                     | 7.34                     | 0.221                       | 140.08                           |
| 84 03 27 | FCL    | 0.05                                       | 5.18                      | 0.015                     | 5.25                     | 0.193                       | 87.46                            |
| 84 04 03 | FCL    | 0.043                                      | 7.88                      | 0.021                     | 7.94                     | 0.217                       | 148.9                            |
| 84 04 09 | FCL    | 0.06                                       | 8.64                      | 0.012                     | 8.71                     | 0.289                       | 217.5                            |
| 84 04 17 | FCL    | 0.04                                       | 2.32                      | 0.005                     | 2.37                     | 2.55                        | 522.16                           |
| 84 04 24 | FCL    | 0.04                                       | 3.61                      | 0.006                     | 3.66                     | 1.48                        | 467.50                           |
| 84 05 01 | FCL    | 0.03                                       | 4.89                      | 0.006                     | 4.93                     | 0.809                       | 344.32                           |
| 84 05 09 | FCL    | 0.03                                       | 5.30                      | 0.005                     | 5.34                     | 0.85                        | 391.80                           |
| 84 05 29 | FCL    | 0.05                                       | 2.51                      | 0.012                     | 2.57                     | 3.77                        | 837.12                           |
| 84 06 05 | FCL    | 0.04                                       | 1.36                      | 0.005                     | 1.405                    | 5.21                        | 632.45                           |
| 84 07 03 | FCL    | 0.01                                       | 1.62                      | 0.014                     | 1.644                    | 3.28                        | 465.90                           |
| 84 08 07 | FCL    | 0.02                                       | 2.58                      | 0.004                     | 2.60                     | 0.956                       | 215.09                           |
| 84 09 04 | FCL    | 0.16                                       | 4.29                      | 0.006                     | 4.47                     | 0.447                       | 172.09                           |
| 84 10 01 | FCL    | 0.05                                       | 5.09                      | 0.007                     | 5.147                    | 0.515                       | 229.02                           |
| 84 11 06 | FCL    | 0.06                                       | 6.69                      | 0.006                     | 6.756                    | 0.344                       | 200.80                           |
| 84 12 04 | FCL    | 0.14                                       | 7.60                      | 0.008                     | 7.748                    | 0.180b                      | 120.50                           |
| 85 01 09 | FCL    | 0.22                                       | 10.3                      | 0.059                     | 10.58                    | 0.178                       | 162.70                           |
| 85 02 11 | FCL    | 0.10                                       | 11.5                      | 0.031                     | 11.63                    | 0.113                       | 113.56                           |
| 85 03 18 | FCL    | 0.03                                       | 7.89                      | 0.008                     | 7.928                    | 0.564                       | 386.33                           |
| 85 04 02 | FCL    | 0.08                                       | 11.5                      | 0.005                     | 11.585                   | 0.340                       | 340.32                           |
| 85 05 02 | FCL    | 0.02                                       | 4.74                      | 0.003                     | 4.763                    | 3.38                        | 1390.95                          |
| 85 05 06 | FCL    | 0.24                                       | 5.68                      | 0.017                     | 5.94                     | 3.75                        | 1923.59                          |
| 85 05 07 | FCL    | 0.01                                       | 2.9                       | 0.003                     | 2.913                    | 3.58                        | 901.03                           |
| 85 05 14 | FCL    | 0.01                                       | 2.0                       | 0.003                     | 2.013                    | 9.95                        | 1730.54                          |
| 85 06 04 | FCL    | < 0.01                                     | 2.0                       | 0.003                     | 2.013                    | 4.65                        | 808.74                           |
| 85 07 02 | FCL    | 0.04                                       | 2.65                      | 0.004                     | 2.694                    | 2.19                        | 509.75                           |
| 85 08 06 | FCL    | < 0.01                                     | 4.54                      | 0.006                     | 4.56                     | 0.624                       | 245.63                           |
| 85 09 03 | FCL    | 0.04                                       | 4.99                      | 0.006                     | 5.036                    | 0.684                       | 298.05                           |

**TABLE 10** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- DOWNSTREAM FORDING STATION (FR4)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 81 04 15 | FCL    | < 0.01                                     | 8.6                       | 0.02                      | 8.72                     | 0.283                       | 213.2                            |
| 81 04 22 | FCL    | < 0.01                                     | 3.7                       | 0.01                      | 3.81                     | 1.40                        | 460.9                            |
| 81 05 06 | FCL    | 0.01                                       | 2.8                       | 0.01                      | 2.91                     | 3.06                        | 769.4                            |
| 81 05 12 | FCL    | < 0.01                                     | 3.3                       | 0.01                      | 3.41                     | 2.42                        | 712.9                            |
| 81 05 19 | FCL    | < 0.01                                     | 1.6                       | 0.01                      | 1.71                     | 4.93                        | 728.4                            |
| 81 05 26 | FCL    | < 0.01                                     | 0.3                       | < 0.01                    | 0.41                     | 21.8                        | 772.2                            |
| 81 06 02 | FCL    | < 0.01                                     | 0.5                       | 0.01                      | 0.61                     | 9.12                        | 480.7                            |
| 81 06 09 | FCL    | < 0.01                                     | 0.7                       | < 0.01                    | 0.81                     | 5.35                        | 374.4                            |
| 81 06 15 | FCL    | < 0.01                                     | 1.3                       | < 0.01                    | 1.41                     | 7.53                        | 917.3                            |
| 81 06 24 | FCL    | < 0.01                                     | 0.8                       | < 0.01                    | 0.91                     | 5.13                        | 403.3                            |
| 81 06 30 | FCL    | < 0.01                                     | 0.6                       | < 0.01                    | 0.71                     | 10.5                        | 644.1                            |
| 81 07 07 | FCL    | < 0.01                                     | 0.70                      | < 0.010                   | 0.81                     | 6.63                        | 463.9                            |
| 81 07 14 | FCL    | < 0.01                                     | 0.90                      | < 0.010                   | 1.01                     | 4.93                        | 430.2                            |
| 81 09 08 | FCL    | 0.009                                      | 3.40                      | 0.012                     | 3.421                    | 0.886                       | 261.9                            |
| 81 09 09 | FCL    | 0.010                                      | 4.19                      | 0.013                     | 4.213                    | 0.872                       | 317.4                            |
| 81 09 10 | FCL    | 0.055                                      | 4.39                      | 0.010                     | 4.455                    | 0.824                       | 317.2                            |
| 81 09 11 | FCL    | 0.020                                      | 3.88                      | 0.019                     | 3.919                    | 0.858                       | 290.5                            |
| 81 09 14 | FCL    | 0.010                                      | 3.78                      | 0.025                     | 3.815                    | 0.799                       | 263.4                            |
| 81 09 15 | FCL    | 0.020                                      | 3.79                      | 0.008                     | 3.838                    | 0.733                       | 243.1                            |
| 81 09 16 | FCL    | 0.010                                      | 3.79                      | 0.032                     | 3.832                    | 0.799                       | 257.9                            |
| 81 09 17 | FCL    | < 0.010                                    | 4.06                      | 0.039                     | 4.109                    | 0.748                       | 265.6                            |
| 81 09 18 | FCL    | < 0.010                                    | 3.79                      | 0.011                     | 3.811                    | 0.776                       | 255.5                            |
| 81 09 21 | FCL    | 0.060                                      | 3.71                      | 0.088                     | 3.858                    | 0.793                       | 264.3                            |
| 81 09 22 | FCL    | 0.010                                      | 3.60                      | 0.100                     | 3.71                     | 0.773                       | 247.8                            |
| 81 09 23 | FCL    | < 0.010                                    | 3.89                      | 0.110                     | 4.01                     | 0.745                       | 258.1                            |
| 81 09 24 | FCL    | 0.010                                      | 4.20                      | 0.110                     | 4.32                     | 0.688                       | 256.8                            |
| 81 09 28 | FCL    | < 0.010                                    | 3.79                      | 0.009                     | 3.819                    | 0.609                       | 200.9                            |
| 81 09 29 | FCL    | < 0.010                                    | 4.19                      | 0.008                     | 4.208                    | 0.589a                      | 214.1                            |
| 81 09 30 | FCL    | 0.010                                      | 3.99                      | 0.006                     | 4.006                    | 0.567                       | 196.2                            |
| 81 10 01 | FCL    | < 0.010                                    | 4.19                      | 0.006                     | 4.206                    | 0.562                       | 204.2                            |
| 81 10 05 | FCL    | 0.06                                       | 4.09                      | 0.009                     | 4.159                    | 0.580                       | 208.4                            |
| 81 11 04 | FCL    | 0.3                                        | 6.4                       | < 0.01                    | 6.71                     | 0.375                       | 217.4                            |
| 82 01 27 | FCL    | 0.01                                       | 7.29                      | 0.006                     | 7.316                    | 0.135                       | 85.3                             |
| 82 02 17 | FCL    | < 0.01                                     | 6.79                      | 0.008                     | 6.808                    | 0.139                       | 81.8                             |
| 82 03 04 | FCL    | 0.01                                       | 6.44                      |                           |                          |                             |                                  |
| 82 03 16 | FCL    | 0.07                                       |                           | 0.011                     |                          |                             |                                  |

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**TABLE 10** (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 82 03 23 | FCL    | < 0.01                                     | 10.48                     | 0.024                     | 10.624                   | 0.124                       | 113.8                            |
| 82 03 30 | FCL    | 0.12                                       | 6.19                      | 0.012                     | 6.282                    | 0.147                       | 79.8                             |
| 82 03 13 | FCL    | 0.08                                       | 8.87                      | 0.033                     | 9.023                    | 0.238                       | 185.8                            |
| 82 04 20 | FCL    | 0.12                                       | 7.08                      | 0.024                     | 7.264                    | 0.247                       | 155.0                            |
| 82 04 27 | FCL    | 0.16                                       | 4.93                      | 0.019                     | 4.989                    | 1.28                        | 551.7                            |
| 82 04 05 | FCL    | 0.04                                       | 2.41                      | 0.008                     | 2.438                    | 1.66                        | 349.7                            |
| 82 05 11 | FCL    | 0.02                                       | 4.00                      | 0.019                     | 4.049                    | 2.16                        | 755.6                            |
| 82 05 19 | FCL    | 0.03                                       | 3.62                      | 0.027                     | 3.63                     | 6.47                        | 2029.3                           |
| 82 05 25 | FCL    | < 0.01                                     | 1.57                      | 0.030                     | 1.62                     | 9.92                        | 1388.5                           |
| 82 06 01 | FCL    | 0.02                                       | 3.15                      | 0.026                     | 3.206                    | 4.78                        | 1324.0                           |
| 82 06 08 | FCL    | 0.03                                       | 2.80                      | 0.017                     | 2.827                    | 5.51                        | 1345.8                           |
| 82 06 15 | FCL    | < 0.01                                     | 1.83                      | 0.017                     | 1.867                    | 10.9                        | 1758.3                           |
| 82 06 22 | FCL    | 0.02                                       | 1.25                      | 0.017                     | 1.287                    | 7.97                        | 886.2                            |
| 82 06 29 | FCL    | 0.02                                       | 1.10                      | 0.005                     | 1.125                    | 5.43                        | 527.8                            |
| 82 06 01 | FCL    | 0.03                                       | 1.2                       | 0.006                     | 1.236                    | 5.15                        | 549.9                            |
| 82 07 05 | FCL    | 0.02                                       | 2.2                       | 0.008                     | 2.228                    | 3.28                        | 631.4                            |
| 82 07 06 | FCL    | 0.02                                       | 2.0                       | 0.009                     | 2.029                    | 3.10                        | 543.4                            |
| 82 07 07 | FCL    | 0.03                                       | 2.2                       | 0.014                     | 2.244                    | 3.17                        | 614.6                            |
| 82 07 08 | FCL    | 0.02                                       | 2.1                       | 0.012                     | 2.132                    | 3.13                        | 576.6                            |
| 82 07 09 | FCL    | 0.03                                       | 1.8                       | 0.010                     | 1.84                     | 2.99                        | 475.3                            |
| 82 07 12 | FCL    | 0.01                                       | 1.7                       | 0.007                     | 1.717                    | 2.61                        | 387.2                            |
| 82 07 13 | FCL    | 0.01                                       | 2.0                       | 0.006                     | 2.016                    | 2.46                        | 428.4                            |
| 82 07 14 | FCL    | 0.02                                       | 2.4                       | 0.010                     | 2.43                     | 2.56                        | 537.5                            |
| 82 07 15 | FCL    | 0.01                                       | 2.3                       | 0.009                     | 2.319                    | 2.19                        | 438.8                            |
| 82 07 16 | FCL    | 0.02                                       | 3.2                       | 0.013                     | 3.233                    | 1.89                        | 527.9                            |
| 82 07 19 | FCL    | 0.02                                       | 2.3                       | 0.008                     | 2.328                    | 1.72                        | 345.9                            |
| 82 07 20 | FCL    | 0.02                                       | 2.6                       | 0.012                     | 2.632                    | 2.09                        | 475.3                            |
| 82 07 21 | FCL    | 0.04                                       | 2.4                       | 0.006                     | 2.446                    | 2.00                        | 422.7                            |
| 82 07 22 | FCL    | 0.03                                       | 2.4                       | 0.006                     | 2.436                    | 1.79                        | 376.7                            |
| 82 07 23 | FCL    | 0.02                                       | 2.4                       | 0.006                     | 2.426                    | 1.61                        | 337.5                            |
| 82 07 26 | FCL    | 0.06                                       | 2.9                       | 0.007                     | 2.967                    | 1.42                        | 364.0                            |
| 82 07 27 | FCL    | 0.05                                       | 3.6                       | 0.009                     | 3.659                    | 1.36                        | 429.9                            |
| 82 07 28 | FCL    | 0.01                                       | 2.9                       | 0.007                     | 2.917                    | 1.33                        | 335.2                            |
| 82 07 29 | FCL    | 0.02                                       | 3.5                       | 0.013                     | 3.533                    | 1.28                        | 390.7                            |
| 82 07 30 | FCL    | 0.01                                       | 2.9                       | 0.008                     | 2.918                    | 1.30                        | 327.7                            |
| 82 08 03 | FCL    | 0.13                                       | 4.3                       | 0.011                     | 4.441                    | 1.12                        | 429.7                            |
| 82 08 04 | FCL    | 0.03                                       | 4.0                       | 0.025                     | 4.055                    | 1.06                        | 371.3                            |

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TABLE 10 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 82 08 05 | FCL    | 0.05                                       | 3.7                       | 0.024                     | 3.774                    | 1.01                        | 329.3                            |
| 82 08 10 | FCL    | 0.16                                       | 4.8                       | 0.016                     | 4.976                    | 0.852                       | 366.3                            |
| 82 08 12 | FCL    | 0.07                                       | 4.5                       | 0.016                     | 4.586                    | 0.834                       | 330.5                            |
| 82 08 16 | FCL    | 0.03                                       | 4.5                       | 0.016                     | 4.546                    | 0.847                       | 332.7                            |
| 82 08 17 | FCL    | 0.03                                       | 4.5                       | 0.016                     | 4.546                    | 0.809                       | 317.8                            |
| 82 08 20 | FCL    | 0.04                                       | 4.5                       | 0.013                     | 4.553                    | 0.721                       | 283.6                            |
| 82 08 24 | FCL    | 0.03                                       | 4.5                       | 0.012                     | 4.542                    | 0.639                       | 250.8                            |
| 82 08 25 | FCL    | 0.05                                       | 4.5                       | 0.014                     | 4.614                    | 0.626                       | 249.6                            |
| 82 10 05 | FCL    | 0.06                                       | 5.18                      | 0.012                     | 5.252                    | 0.753                       | 341.7                            |
| 82 10 13 | FCL    | 0.04                                       | 7.94                      | 0.010                     | 7.99                     | 0.516                       | 356.2                            |
| 82 10 19 | FCL    | 0.12                                       | 5.33                      | 0.015                     | 5.465                    | 0.536                       | 253.1                            |
| 82 10 27 | FCL    | 0.06                                       | 4.91                      | 0.010                     | 4.98                     | 0.470                       | 202.2                            |
| 82 11 23 | FCL    | 0.12                                       | 9.30                      | 0.005                     | 9.425                    | 0.275                       | 223.9                            |
| 83 04 19 | FCL    | 0.02                                       | 6.00                      | 0.021                     | 6.04                     | 0.636                       | 331.9                            |
| 83 04 26 | FCL    | 0.02                                       | 3.50                      | 0.020                     | 3.54                     | 2.50                        | 764.6                            |
| 83 05 03 | FCL    | 0.01                                       | 4.10                      | 0.022                     | 4.132                    | 1.41                        | 503.4                            |
| 83 05 10 | FCL    | 0.02                                       | 3.34                      | 0.006                     | 3.366                    | 1.70                        | 494.4                            |
| 83 05 17 | FCL    | < 0.01                                     | 0.95                      | < 0.003                   | 0.963                    | 2.87                        | 238.8                            |
| 83 05 19 | FCL    | 0.02                                       | 2.20                      | 0.005                     | 2.225                    | 2.94                        | 565.2                            |
| 83 05 24 | FCL    | 0.01                                       | 1.22                      | 0.004                     | 1.234                    | 7.02                        | 748.5                            |
| 83 05 31 | FCL    | < 0.01                                     | 0.60                      | 0.004                     | 0.614                    | 8.45                        | 448.3                            |
| 83 06 07 | FCL    | 0.02                                       | 0.79                      | 0.004                     | 0.814                    | 6.60                        | 464.2                            |
| 83 06 14 | FCL    | 0.01                                       | 1.37                      | 0.004                     | 1.38                     | 3.41                        | 407.8                            |
| 83 06 21 | FCL    | 0.02                                       | 1.98                      | 0.005                     | 2.005                    | 2.01                        | 348.2                            |
| 83 07 12 | FCL    | 0.01                                       | 1.52                      | 0.003                     | 1.533                    | 2.31                        | 305.9                            |
| 83 08 05 | FCL    | 0.03                                       | 2.60                      | 0.004                     | 2.634                    | 0.934                       | 212.6                            |
| 83 09 16 | FCL    | < 0.01                                     | 4.69                      | 0.008                     | 4.708                    | 0.464                       | 188.7                            |
| 83 09 20 | FCL    | 0.01                                       | 4.44                      | 0.009                     | 4.459                    | 0.433                       | 166.8                            |
| 83 10 06 | FCL    | 0.06                                       | 6.89                      | 0.007                     | 6.957                    | 0.380                       | 228.4                            |
| 84 04 09 | FCL    | 0.05                                       | 10.8                      | 0.023                     | 10.873                   | 0.289                       | 271.5                            |
| 84 04 17 | FCL    | 0.05                                       | 2.49                      | 0.008                     | 2.548                    | 2.55                        | 561.4                            |
| 84 04 24 | FCL    | 0.02                                       | 3.49                      | 0.007                     | 3.517                    | 1.48                        | 449.7                            |
| 84 05 01 | FCL    | 0.01                                       | 5.94                      | 0.008                     | 5.958                    | 0.809                       | 416.4                            |
| 84 05 09 | FCL    | 0.02                                       | 5.49                      | 0.007                     | 5.517                    | 0.852                       | 406.1                            |
| 84 05 29 | FCL    | 0.04                                       | 2.11                      | 0.012                     | 2.162                    | 3.77                        | 704.2                            |
| 84 06 05 | FCL    | 0.04                                       | 1.20                      | 0.004                     | 1.244                    | 5.21                        | 559.9                            |
| 84 07 03 | FCL    | < 0.01                                     | 1.22                      | 0.013                     | 1.243                    | 3.28                        | 352.2                            |

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TABLE 10 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|----------------------------------|
| 84 08 07 | FCL    | 0.01                                       | 3.29                      | 0.008                     | 3.308                    | 0.956                       | 273.2                            |
| 84 09 04 | FCL    | 0.05                                       | 4.14                      | 0.008                     | 4.198                    | 0.447                       | 162.1                            |
| 84 10 01 | FCL    | 0.05                                       | 5.14                      | 0.009                     | 5.199                    | 0.515                       | 231.3                            |
| 84 11 06 | FCL    | 0.07                                       | 7.79                      | 0.008                     | 7.868                    | 0.344                       | 233.8                            |
| 85 03 18 | FCL    | 0.05                                       | 6.39                      | 0.010                     | 6.45                     | 0.564                       | 81.7                             |
| 85 04 02 | FCL    | 0.07                                       | 11.0                      | 0.010                     | 11.08                    | 0.340                       | 325.49                           |
| 85 05 07 | FCL    | 0.01                                       | 2.3                       | 0.003                     | 2.313                    | 3.76                        | 751.4                            |
| 85 06 04 | FCL    | < 0.01                                     | 1.7                       | 0.003                     | 1.713                    | 4.65                        | 929.27                           |
| 85 07 02 | FCL    | 0.04                                       | 2.45                      | 0.004                     | 2.494                    | 2.19                        | 471.90                           |
| 85 08 06 | FCL    | < 0.01                                     | 4.84                      | 0.009                     | 4.859                    | 0.624                       | 261.97                           |
| 83 09 03 | FCL    | 0.02                                       | 4.14                      | 0.006                     | 4.166                    | 0.685                       | 246.56                           |

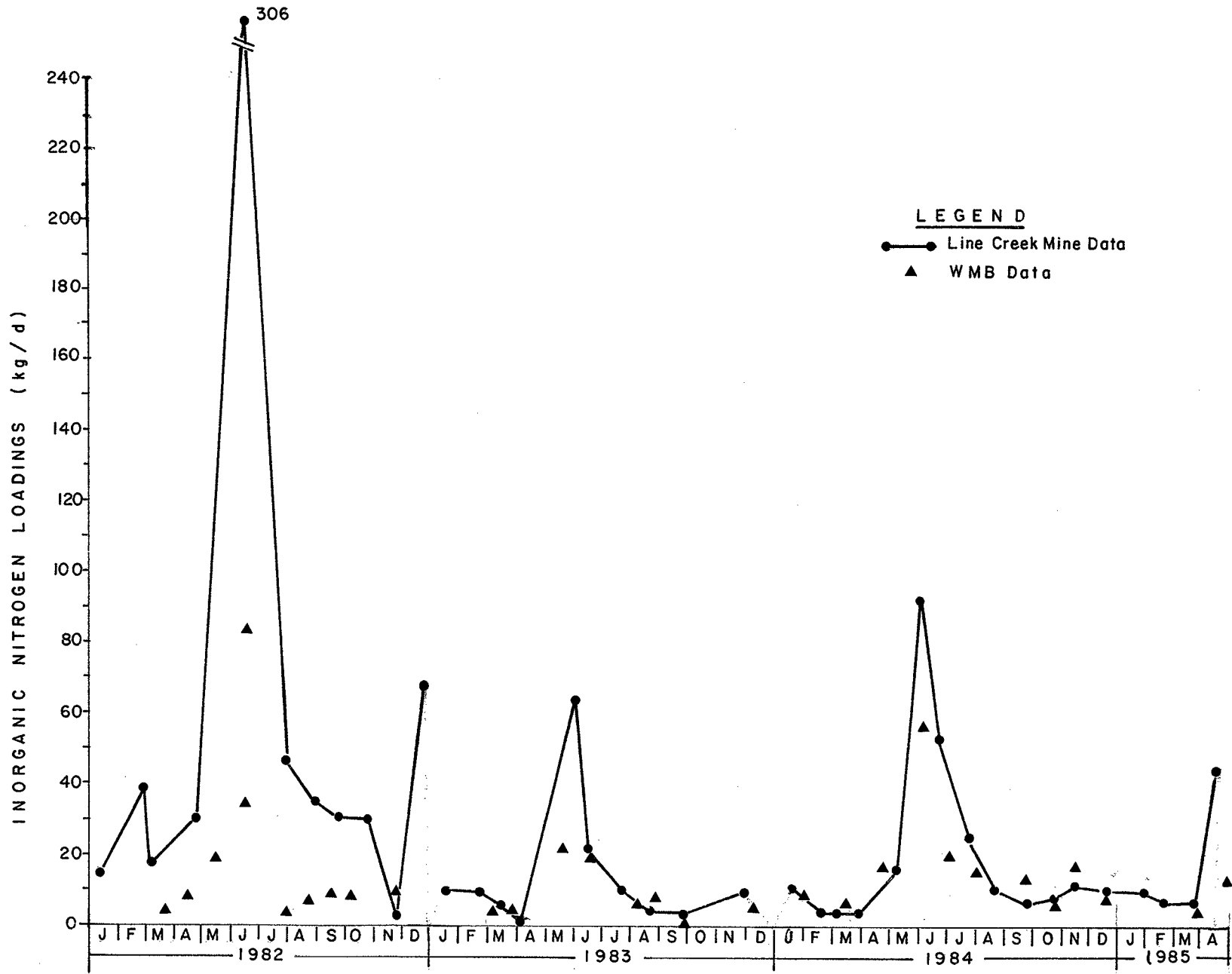
**TABLE 11** NITROGEN WATER QUALITY DATA FOR FORDING COAL LTD. - FORDING COAL LTD.  
- SEEPAGE FROM THE SOUTH TAILINGS POND

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | INORGANIC<br>N<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s)                          | INORGANIC<br>N LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|--------------------------|------------------------------------------------------|----------------------------------|
| 81 10 02 | FCL    | 0.05                                       | 2.20                      | < 0.003                   | 2.253                    |                                                      |                                  |
| 81 10 02 | FCL    | 11.0                                       | 31.4                      | 0.65                      | 43.05                    |                                                      |                                  |
| 81 10 02 | FCL    | 0.08                                       | 2.50                      | 0.003                     | 2.583                    |                                                      |                                  |
| 81 11 04 | FCL    | 0.1                                        | 3.4                       | < 0.01                    | 3.51                     |                                                      |                                  |
| 81 11 04 | FCL    | 1.87                                       | 2.0                       | 0.39                      | 4.19                     |                                                      |                                  |
| 81 11 04 | FCL    | < 0.1                                      | 12.0                      | < 0.01                    | 12.11                    |                                                      |                                  |
| 82 02 26 | FCL    | 0.30                                       | 0.025                     | 0.006                     | 0.331                    |                                                      |                                  |
| 82 02 26 | FCL    | 0.12                                       | 0.022                     | 0.015                     | 0.336                    |                                                      |                                  |
| 82 08 10 | FCL    | < 0.005                                    | 6.75                      | 0.251                     | 7.006                    |                                                      |                                  |
|          |        |                                            |                           |                           |                          | ANNUAL<br>FLOW<br>(x10 <sup>3</sup> m <sup>3</sup> ) |                                  |
| 80       |        |                                            |                           |                           |                          | 6416.6                                               |                                  |
| 81       |        |                                            |                           |                           |                          | 7119.2                                               |                                  |
| 82       |        |                                            |                           |                           |                          | 4864                                                 |                                  |
| 83       |        |                                            |                           |                           |                          | 3840.3                                               |                                  |
| 84       |        |                                            |                           |                           |                          | 3027.7                                               |                                  |
| 85       |        |                                            |                           |                           |                          | 3944.6                                               |                                  |

APPENDIX V

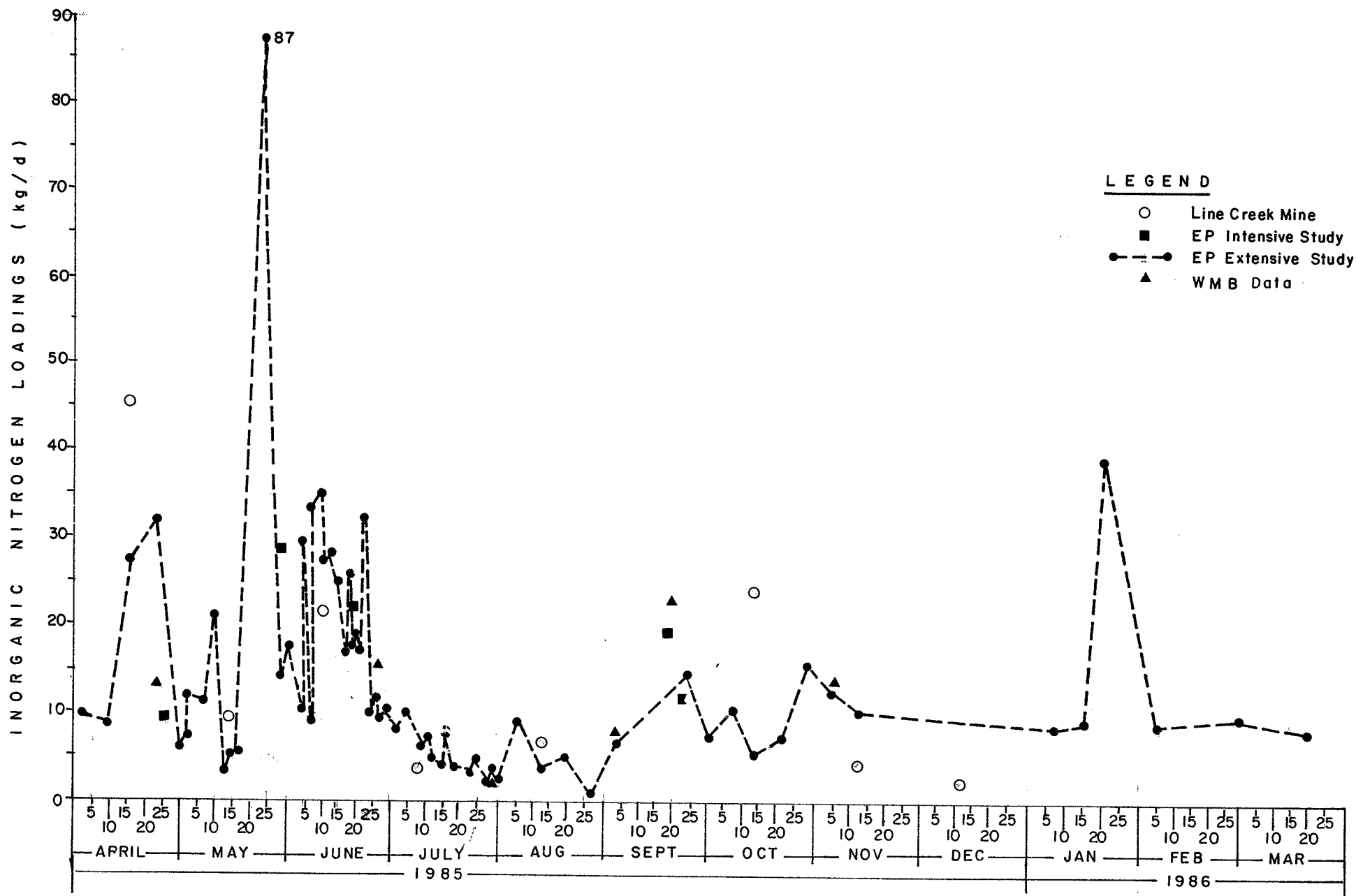
CROWS NEST RESOURCES-LINE CREEK NUTRIENT DATA

- INORGANIC NITROGEN LOADING GRAPHS
- NUTRIENT DATA SET



**FIGURE 1 INORGANIC NITROGEN LOADINGS - LINE CREEK DOWNSTREAM OF MINE 1982 - 1985**





**FIGURE 2 INORGANIC NITROGEN LOADINGS LINE CREEK DOWNSTREAM OF OPERATIONS APRIL 1, 1985 TO MARCH 31, 1986**

TABLE 1

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR LINE CREEK MINE - LINE CREEK DOWNSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 81 05 19 | WMB    | 0.013                                      | 0.10*                     |                           | 0.203         | 0.009         | 0.006         | 0.046        | 4.42                        | 43.2                             | 3.44                               |
| 81 06 09 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.085         | 0.012         | 0.008         | 0.033        | 6.71                        | 43.5                             | 6.96                               |
| 81 07 14 | WMB    | < 0.005                                    | 0.05*                     |                           | 0.075         | 0.008         | 0.006         | 0.016        | 5.78                        | 27.5                             | 4.00                               |
| 81 08 06 | WMB    | < 0.005                                    | < 0.02*                   |                           | 0.035         | 0.007         | 0.003         | 0.008        | 2.59                        | 5.60                             | 1.57                               |
| 81 09 02 | WMB    | < 0.005                                    | 0.04*                     |                           | 0.145         | 0.008         | 0.004         | 0.010        | 1.49                        | 5.8                              | 1.03                               |
| 81 10 01 | LCM    | < 0.1                                      | < 0.1                     | 0.2                       |               |               |               |              | 1.01                        | 34.9                             |                                    |
| 81 10 06 | WMB    | < 0.005                                    | 0.04*                     |                           | 0.175         | 0.004         | 0.003         | 0.055        | 1.02                        | 4.0                              | 0.35                               |
| 81 11 10 | LCM    | 0.2                                        | 0.1                       | 0.1                       |               |               |               |              | 7.62                        | 26.3                             |                                    |
| 81 11 24 | WMB    | < 0.005                                    | 0.10*                     |                           | 0.115         | 0.005         | 0.003         | 0.006        | 0.674                       | 6.1                              | 0.29                               |
| 81 12 03 | LCM    | 0.4                                        | < 0.1                     | < 0.1                     |               |               |               |              | 0.648                       | 33.6                             |                                    |
| 81 12 03 | WMB    | < 0.005                                    | 0.14*                     |                           | 0.145         |               |               |              | 0.648                       | 8.1                              |                                    |
| 82 01 12 | LCM    | 0.07                                       | < 0.1                     | < 0.1                     |               |               |               |              | 0.635                       | 14.8                             |                                    |
| 82 02 23 | LCM    | 0.09                                       | 0.3                       | 0.1                       |               |               |               |              | 0.940                       | 39.8                             |                                    |
| 82 03 05 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              | 0.655                       | 16.9                             |                                    |
| 82 03 16 | WMB    | < 0.005                                    | 0.10*                     |                           | 0.165         | 0.005         | < 0.003       | 0.007        | 0.501                       | 4.5                              | 0.22                               |
| 82 04 14 | WMB    | < 0.005                                    | 0.13*                     |                           | 0.205         | 0.005         | < 0.003       | 0.007        | 0.670                       | 7.8                              | 0.29                               |
| 82 04 21 | LCM    | 0.35                                       | < 0.1                     | < 0.1                     |               |               |               |              | 0.650                       | 30.9                             |                                    |
| 82 05 13 | WMB    | 0.008                                      | 0.08*                     |                           | 0.188         | 0.007         | 0.003         | 0.018        | 2.52                        | 19.2                             | 1.52                               |
| 82 05 17 | LCM    | 0.06                                       | < 0.1                     | < 0.1                     |               |               |               |              | 6.84                        | 153.7                            |                                    |
| 82 06 10 | LCM    | 0.28                                       | 0.1                       | 0.1                       |               |               |               |              | 7.37                        | 305.6                            |                                    |
| 82 06 10 | WMB    | < 0.005                                    | 0.05*                     |                           | 0.055         |               |               |              | 7.37                        | 35.0                             |                                    |
| 82 06 15 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.155         | 0.007         | 0.006         | 0.026        | 13.0                        | 84.2                             | 7.86                               |
| 82 07 28 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              | 1.79                        | 46.4                             |                                    |
| 82 07 28 | WMB    | < 0.005                                    | 0.02*                     |                           | 0.125         | 0.006         | 0.006         | 0.009        | 1.79                        | 3.9                              | 0.93                               |
| 82 08 18 | WMB    | 0.08                                       | 0.05*                     |                           | 0.118         | 0.008         | 0.005         | 0.010        | 1.41                        | 7.1                              | 0.98                               |
| 82 08 30 | LCM    | 0.14                                       | < 0.1                     | 0.1                       |               |               |               |              | 1.20                        | 35.3                             |                                    |
| 82 09 15 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.125         | 0.007         | 0.004         | 0.009        | 1.16                        | 7.5                              | 0.70                               |
| 82 09 20 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              | 1.18                        | 30.6                             |                                    |
| 82 10 06 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.175         | 0.006         | 0.003         | 0.007        | 1.28                        | 8.3                              | 0.66                               |
| 82 10 21 | LCM    | 0.14                                       | < 0.1                     | < 0.1                     |               |               |               |              | 1.05                        | 30.8                             |                                    |
| 82 11 23 | LCM    | < 0.05                                     | < 0.1                     | < 0.003                   |               |               |               |              | 0.585                       | 3.18                             |                                    |
| 82 11 24 | WMB    | < 0.005                                    | 0.15*                     |                           | 0.295         | 0.007         | 0.004         | 0.007        | 0.610                       | 8.2                              | 0.37                               |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 12 21 | LCM    | 0.81                                       | 0.58                      | 0.003                     |               |               |               |              | 0.570                       | 68.6                             |                                    |
| 83 01 19 | LCM    | < 0.05                                     | 0.18                      | 0.002                     |               |               |               |              | 0.528                       | 10.6                             |                                    |
| 83 02 14 | LCM    | < 0.05                                     | 0.17                      | 0.002                     |               |               |               |              | 0.538                       | 10.3                             |                                    |
| 83 03 07 | WMB    | 0.005                                      | 0.13*                     |                           | 0.135         |               |               |              | 0.490                       | 5.7                              |                                    |
| 83 03 11 | LCM    | < 0.01                                     | 0.15                      | < 0.002                   |               |               |               |              | 0.540                       | 7.6                              |                                    |
| 83 03 21 | WMB    | < 0.005                                    | 0.12*                     |                           | 0.145         | 0.005         | < 0.003       | 0.005        | 0.474                       | 5.1                              | 0.21                               |
| 83 04 04 | LCM    | < 0.01                                     | 0.06                      | 0.002                     |               |               |               |              | 0.493                       | 3.1                              |                                    |
| 83 05 18 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.195         | 0.004         | < 0.003       | 0.013        | 3.39                        | 22.0                             | 1.17                               |
| 83 05 31 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.075         |               |               |              | 9.62                        | 62.3                             |                                    |
| 83 05 31 | LCM    | < 0.01                                     | 0.066                     | < 0.002                   |               |               |               |              | 9.62                        | 64.8                             |                                    |
| 83 06 14 | WMB    | 0.005                                      | 0.05*                     |                           | 0.105         | 0.010         | 0.005         | 0.012        | 4.52                        | 21.5                             | 3.91                               |
| 83 06 14 | LCM    | < 0.01                                     | 0.044                     | < 0.002                   |               |               |               |              | 4.52                        | 21.9                             |                                    |
| 83 07 19 | LCM    | < 0.01                                     | 0.025                     | < 0.002                   |               |               |               |              | 3.36                        | 10.7                             |                                    |
| 83 08 03 | WMB    | 0.025                                      | 0.02*                     |                           | 0.185         | 0.007         | 0.005         | 0.007        | 1.63                        | 6.3                              | 0.99                               |
| 83 08 22 | LCM    | < 0.01                                     | 0.037                     | < 0.002                   |               |               |               |              | 1.14                        | 4.8                              |                                    |
| 83 08 30 | WMB    | 0.008                                      | 0.07*                     |                           | 0.148         | 0.009         | 0.005         | 0.010        | 1.02                        | 6.9                              | 0.79                               |
| 83 09 19 | LCM    | < 0.01                                     | 0.046                     | 0.004                     |               |               |               |              | 0.823                       | 4.3                              |                                    |
| 83 09 26 | WMB    | < 0.005                                    | 0.05*                     |                           | 0.105         | 0.009         | 0.003         | 0.009        | 0.758                       | 3.6                              | 0.59                               |
| 83 11 29 | LMC    | 0.041                                      | 0.15                      | 0.008                     |               |               |               |              | 0.603                       | 10.4                             |                                    |
| 83 11 29 | WMB    | < 0.005                                    | 0.14*                     |                           | 0.215         | 0.008         | 0.004         | 0.009        | 0.618                       | 7.7                              | 0.43                               |
| 83 12 05 | LCM    | 0.012                                      | 0.14                      | 0.004                     |               |               |               |              | 0.497                       | 6.7                              |                                    |
| 84 01 17 | LCM    | < 0.005                                    | 0.32                      | < 0.001                   |               |               |               |              | 0.422                       | 11.9                             |                                    |
| 84 01 31 | WMB    | < 0.005                                    | 0.19*                     |                           | 0.195         |               |               |              | 0.500                       | 8.4                              |                                    |
| 84 02 20 | LCM    | < 0.020                                    | 0.14                      | < 0.001                   |               |               |               |              | 0.375                       | 5.2                              |                                    |
| 84 03 05 | LCM    | < 0.020                                    | 0.15                      | 0.001                     |               |               |               |              | 0.378                       | 5.6                              |                                    |
| 84 03 20 | WMB    | < 0.005                                    | 0.15*                     |                           | 0.185         | 0.005         | < 0.003       | 0.006        | 0.469                       | 6.3                              | 0.20                               |
| 84 04 02 | LCM    | < 0.020                                    | 0.11                      | 0.001                     |               |               |               |              | 0.494                       | 5.6                              |                                    |
| 84 04 24 | WMB    | < 0.005                                    | 0.13*                     |                           | 0.205         | 0.007         | < 0.003       | 0.009        | 1.41                        | 16.4                             | 0.85                               |
| 84 55 10 | LCM    | 0.027                                      | 0.14                      | 0.002                     |               |               |               |              | 1.18                        | 17.2                             |                                    |
| 84 05 10 | WMB    | < 0.005                                    | 0.10*                     |                           | 0.105         |               |               |              | 1.18                        | 10.7                             |                                    |
| 84 05 30 | LCM    | < 0.01                                     | 0.072                     | 0.006                     |               |               |               |              | 12.4                        | 94.3                             |                                    |
| 84 06 05 | WMB    | < 0.005                                    | 0.12*                     |                           | 0.175         | 0.011         | 0.004         | 0.014        | 5.35                        | 57.8                             | 5.08                               |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 06 18 | LCM    | < 0.01                                     | 0.062                     | < 0.001                   |               |               |               |              | 8.78                        | 55.4                             |                                    |
| 84 07 03 | WMB    | < 0.005                                    | 0.05*                     |                           | 0.115         | 0.006         | < 0.003       | 0.009        | 4.09                        | 19.4                             | 2.12                               |
| 84 07 23 | LCM    | < 0.01                                     | 0.13                      | 0.003                     |               |               |               |              | 2.08                        | 25.7                             |                                    |
| 84 08 01 | WMB    | < 0.005                                    | 0.10*                     |                           | 0.175         | 0.006         | < 0.003       | 0.012        | 1.70                        | 15.4                             | 0.88                               |
| 84 08 21 | LCM    | < 0.01                                     | 0.09                      | < 0.001                   |               |               |               |              | 1.20                        | 11.4                             |                                    |
| 84 09 25 | LCM    | < 0.01                                     | 0.076                     | 0.002                     |               |               |               |              | 1.04                        | 7.9                              |                                    |
| 84 09 26 | WMB    | < 0.005                                    | 0.15*                     |                           | 0.185         | 0.006         | 0.003         | 0.006        | 1.02                        | 13.7                             | 0.53                               |
| 84 10 23 | LCM    | < 0.01                                     | 0.10                      | 0.001                     |               |               |               |              | 0.875                       | 8.4                              |                                    |
| 84 10 24 | WMB    | 0.005                                      | 0.13*                     |                           | 0.155         | 0.005         | < 0.003       | 0.005        | 0.849                       | 9.9                              | 0.37                               |
| 84 11 20 | LCM    | 0.015                                      | 0.16                      | 0.001                     |               |               |               |              | 0.770                       | 11.7                             |                                    |
| 84 11 20 | WMB    | < 0.005                                    | 0.18*                     |                           | 0.185         |               |               |              | 0.770                       | 12.3                             |                                    |
| 84 12 18 | LCM    | < 0.01                                     | 0.22                      | < 0.01                    |               |               |               |              | 0.510                       | 10.6                             |                                    |
| 84 12 18 | WMB    | 0.007                                      | 0.22*                     |                           | 0.277         | 0.007         | 0.005         | 0.007        | 0.510                       | 10.0                             | 0.31                               |
| 85 01 28 | LCM    | < 0.02                                     | 0.22                      | < 0.001                   |               |               |               |              | 0.474                       | 9.9                              |                                    |
| 85 02 26 | LCM    | < 0.02                                     | 0.21                      | 0.003                     |               |               |               |              | 0.370                       | 7.4                              |                                    |
| 85 03 21 | LCM    | < 0.02                                     | 0.20                      | 0.004                     |               |               |               |              | 0.417                       | 8.1                              |                                    |
| 85 03 28 | WMB    | < 0.005                                    | 0.19*                     |                           | 0.225         | 0.005         | 0.003         | 0.006        | 0.420                       | 7.1                              | 0.18                               |
| 85 04 02 | EP     | 0.007                                      | 0.21                      | < 0.005                   | 0.25          | < 0.002       | < 0.002       | 0.008        | 0.515                       | 9.878                            | 0.089                              |
| 85 04 09 | EP     | < 0.005                                    | 0.154                     | < 0.005                   | 0.19          | < 0.002       | < 0.002       | 0.005        | 0.616                       | 8.728                            | 0.106                              |
| 85 04 16 | EP     | < 0.005                                    | 0.178                     | < 0.005                   | 0.22          | < 0.002       | < 0.002       | 0.007        | 1.680                       | 27.29                            | 0.29                               |
| 85 04 16 | LCM    | < 0.02                                     | 0.29                      | 0.002                     |               |               |               |              | 1.68                        | 45.3                             |                                    |
| 85 04 23 | EP     | < 0.005                                    | 0.116                     | < 0.005                   | 0.16          | < 0.002       | < 0.002       | 0.004        | 2.950                       | 32.11                            | 0.510                              |
| 85 04 24 | WMB    | < 0.005                                    | 0.13*                     |                           |               | 0.004         | < 0.003       | 0.005        | 1.14                        | 13.3                             | 0.39                               |
| 85 04 26 | EP     | < 0.005                                    | 0.10                      | < 0.005                   | 0.13          | 0.003         |               | 0.012        | 1.01                        | 9.6                              | 0.26                               |
| 85 04 30 | EP     | 0.008                                      | 0.033                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | 0.005        | 1.540                       | 6.121                            | 0.266                              |
| 85 05 01 | EP     | < 0.005                                    | 0.036                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | 0.005        | 1.850                       | 7.353                            | 0.32                               |
| 85 05 02 | EP     | < 0.005                                    | 0.044                     | < 0.005                   | 0.13          | < 0.002       | < 0.002       | 0.008        | 2.620                       | 12.22                            | 0.453                              |
| 85 05 03 | EP     |                                            |                           |                           |               |               |               |              | 3.680                       |                                  |                                    |
| 85 05 06 | EP     |                                            |                           |                           |               |               |               |              | 2.830                       |                                  |                                    |
| 85 05 07 | EP     | < 0.005                                    | 0.035                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | 0.005        | 2.940                       | 11.43                            | 0.508                              |
| 85 05 08 | EP     | < 0.005                                    | 0.043                     | 0.006                     | 0.10          | < 0.002       | < 0.002       | 0.005        | 3.110                       | 14.51                            | 0.537                              |
| 85 05 09 | EP     | < 0.005                                    | 0.055                     | 0.006                     | 0.12          | < 0.002       | < 0.002       | 0.006        | 3.080                       | 17.56                            | 0.532                              |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 10 | EP     | < 0.005                                    | 0.066                     | 0.006                     | 0.12          | < 0.002       | < 0.002       | 0.006        | 3.160                       | 21.02                            | 0.546                              |
| 85 05 13 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.004        | 2.710                       | 3.512                            | 0.468                              |
| 85 05 14 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.003        | 3.030                       | 3.927                            | 0.524                              |
| 85 05 14 | LCM    | < 0.02                                     | 0.015                     | < 0.001                   |               |               |               |              | 3.03                        | 9.4                              |                                    |
| 85 05 15 | EP     | 0.008                                      | < 0.005                   | < 0.005                   | 0.11          | < 0.002       | < 0.002       | 0.005        | 3.350                       | 5.21                             | 0.579                              |
| 85 05 16 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.08          | < 0.002       | < 0.002       | 0.008        | 4.40                        | 5.702                            | 0.76                               |
| 85 05 17 | EP     |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 85 05 21 | EP     | < 0.005                                    | 0.048                     | < 0.005                   | 0.15          | < 0.002       | < 0.002       | 0.018        | 8.750                       | 43.85                            | 1.512                              |
| 85 05 22 | EP     | 0.011                                      | 0.098                     | 0.003                     | 0.21          | < 0.002       | < 0.002       | 0.008        | 9.050                       | 87.58                            | 1.564                              |
| 85 05 23 | EP     | < 0.005                                    | 0.05                      | < 0.005                   | 0.11          | < 0.002       | < 0.002       | 0.014        | 9.770                       | 50.65                            | 1.688                              |
| 85 05 24 | EP     |                                            |                           |                           |               |               |               |              | 9.590                       |                                  |                                    |
| 85 05 27 | EP     |                                            |                           |                           |               |               |               |              | 6.360                       |                                  |                                    |
| 85 05 28 | EP     |                                            |                           |                           |               |               |               |              | 5.800                       |                                  |                                    |
| 85 05 29 | EP     | < 0.005                                    | 0.02                      | 0.002                     | 0.06          | < 0.002       | < 0.002       | 0.007        | 5.530                       | 14.33                            | 0.956                              |
| 85 05 29 | EP     | < 0.005                                    | 0.05                      | < 0.005                   | 0.08          | 0.009         |               | 0.011        | 5.530                       | 28.67                            | 4.3001                             |
| 85 05 30 | EP     | < 0.005                                    | 0.02                      | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.006        | 6.210                       | 16.1                             | 1.073                              |
| 85 05 31 | EP     | < 0.005                                    | 0.022                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.006        | 6.260                       | 17.31                            | 1.082                              |
| 85 06 03 | EP     | < 0.005                                    | 0.02                      | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.003        | 5.040                       | 13.06                            | 0.871                              |
| 85 06 04 | EP     | < 0.005                                    | 0.016                     | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.006        | 4.850                       | 10.9                             | 0.838                              |
| 85 06 05 | EP     | 0.05                                       | 0.014                     | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.006        | 4.920                       | 29.33                            | 0.85                               |
| 85 06 06 | EP     | < 0.005                                    | 0.014                     | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.011        | 4.520                       | 9.373                            | 0.781                              |
| 85 06 07 | EP     | 0.006                                      | 0.038                     | < 0.005                   | 0.11          | < 0.002       | < 0.002       | 0.018        | 7.860                       | 33.28                            | 1.358                              |
| 85 06 10 | EP     | < 0.005                                    | 0.059                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | 0.006        | 5.900                       | 35.17                            | 1.02                               |
| 85 06 10 | LCM    | < 0.02                                     | 0.022                     | 0.001                     |               |               |               |              | 5.900                       | 21.9                             |                                    |
| 85 06 11 | EP     | < 0.005                                    | 0.052                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | 0.006        | 5.070                       | 27.16                            | 0.876                              |
| 85 06 12 | EP     | < 0.005                                    | 0.053                     | < 0.005                   | 0.11          | < 0.002       | < 0.002       | 0.007        | 5.070                       | 27.6                             | 0.876                              |
| 85 06 13 | EP     |                                            |                           |                           |               |               |               |              | 4.860                       |                                  |                                    |
| 85 06 14 | EP     | < 0.005                                    | 0.054                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.005        | 4.540                       | 25.1                             | 0.785                              |
| 85 06 17 | EP     | < 0.005                                    | 0.043                     | < 0.005                   | 0.05          | < 0.002       | < 0.002       | 0.004        | 3.710                       | 16.99                            | 0.641                              |
| 85 06 18 | EP     | 0.006                                      | 0.071                     | < 0.005                   | 0.075         | < 0.002       | < 0.002       | 0.004        | 3.610                       | 25.58                            | 0.624                              |
| 85 06 19 | EP     | 0.006                                      | 0.045                     | < 0.005                   | 0.07          | 0.006         | < 0.002       | 0.006        | 3.700                       | 17.9                             | 1.918                              |
| 85 06 19 | EP     | < 0.005                                    | 0.058                     | < 0.005                   | 0.1           | 0.013         |               | 0.013        | 3.700                       | 21.74                            | 4.156                              |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 06 20 | EP     | 0.006                                      | 0.046                     | < 0.005                   | 0.08          | 0.006         | < 0.002       | 0.006        | 3.870                       | 19.06                            | 2.006                              |
| 85 06 21 | EP     | 0.005                                      | 0.046                     | < 0.005                   | 0.09          | 0.006         | < 0.002       | 0.006        | 3.490                       | 16.89                            | 1.809                              |
| 85 06 23 | EP     | 0.005                                      | 0.116                     | < 0.005                   | 0.16          | < 0.002       | < 0.002       | < 0.002      | 2.950                       | 32.11                            | 0.51                               |
| 85 06 24 | EP     | 0.006                                      | 0.034                     | < 0.005                   | 0.09          | 0.006         | < 0.002       | 0.006        | 2.680                       | 10.42                            | 1.389                              |
| 85 06 25 | EP     | 0.006                                      | 0.042                     | < 0.005                   | 0.10          | 0.013         | < 0.002       | 0.013        | 2.540                       | 11.63                            | 2.853                              |
| 85 06 26 | EP     | 0.007                                      | 0.042                     | < 0.005                   | 0.07          | 0.006         | < 0.002       | 0.006        | 2.440                       | 11.38                            | 1.265                              |
| 85 06 26 | WMB    | < 0.005                                    | 0.07*                     |                           | 0.125         | 0.005         | 0.003         | 0.007        | 2.37                        | 15.4                             | 1.02                               |
| 85 06 27 | EP     | 0.007                                      | 0.033                     | < 0.005                   | 0.08          | 0.01          | 0.003         | 0.01         | 2.410                       | 9.37                             | 2.082                              |
| 85 06 28 | EP     | 0.006                                      | 0.035                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 2.520                       | 9.618                            | 0.418                              |
| 85 07 02 | EP     | 0.006                                      | 0.034                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 2.180                       | 8.476                            | 0.377                              |
| 85 07 03 | EP     | 0.006                                      | 0.036                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 2.190                       | 8.893                            | 0.378                              |
| 85 07 04 | EP     | 0.006                                      | 0.039                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 2.130                       | 9.202                            | 0.368                              |
| 85 07 05 | EP     | 0.006                                      | 0.047                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 2.030                       | 10.17                            | 0.351                              |
| 85 07 08 | EP     | 0.006                                      | 0.045                     | < 0.005                   | 0.1           | 0.003         | < 0.002       | 0.003        | 1.780                       | 8.612                            | 0.461                              |
| 85 07 08 | LCM    | < 0.02                                     | < 0.003                   | < 0.001                   |               |               |               |              | 1.690                       | 3.5                              |                                    |
| 85 07 09 | EP     | < 0.005                                    | 0.039                     | < 0.005                   | 0.1           | < 0.002       | < 0.002       | 0.005        | 1.650                       | 6.985                            | 0.285                              |
| 85 07 10 | EP     | < 0.005                                    | 0.04                      | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 1.610                       | 6.955                            | 0.278                              |
| 85 07 11 | EP     | 0.008                                      | 0.036                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.004        | 1.550                       | 6.562                            | 0.268                              |
| 85 07 12 | EP     | 0.006                                      | 0.028                     | < 0.005                   | 0.08          | < 0.002       | < 0.002       | < 0.002      | 1.430                       | 4.819                            | 0.247                              |
| 85 07 14 | EP     | 0.018                                      | 0.093                     | < 0.005                   | 0.29          | < 0.002       | < 0.002       | < 0.002      | 1.420                       | 14.23                            | 0.245                              |
| 85 07 15 | EP     | < 0.005                                    | 0.026                     | < 0.005                   | 0.14          | 0.006         | < 0.002       | 0.006        | 1.320                       | 4.106                            | 0.684                              |
| 85 07 16 | EP     | < 0.005                                    | 0.055                     | 0.006                     | 0.31          | 0.006         | < 0.002       | 0.006        | 1.320                       | 7.527                            | 0.684                              |
| 85 07 17 | EP     | < 0.005                                    | 0.027                     | 0.006                     | 0.08          | < 0.002       | < 0.002       | < 0.002      | 1.410                       | 4.629                            | 0.244                              |
| 85 07 18 | EP     | < 0.005                                    | 0.024                     | < 0.005                   | 0.05          | < 0.002       | < 0.002       | < 0.002      | 1.320                       | 3.878                            | 0.228                              |
| 85 07 22 | EP     | < 0.005                                    | 0.024                     | < 0.005                   | 0.08          | < 0.002       | < 0.002       | 0.08         | 1.170                       | 3.437                            | 0.202                              |
| 85 07 23 | EP     | 0.008                                      | 0.021                     | < 0.005                   | 0.06          | < 0.002       | < 0.002       | < 0.002      | 1.160                       | 3.408                            | 0.20                               |
| 85 07 24 | EP     | 0.006                                      | 0.034                     | < 0.005                   | 0.09          | < 0.002       | < 0.002       | < 0.002      | 1.120                       | 4.355                            | 0.194                              |
| 85 07 25 | EP     | 0.006                                      | 0.033                     | < 0.005                   | 0.08          | < 0.002       | < 0.002       | < 0.002      | 1.090                       | 4.144                            | 0.188                              |
| 85 07 26 | EP     | < 0.005                                    | 0.03                      | < 0.005                   | 0.08          | < 0.002       | < 0.002       | < 0.002      | 1.050                       | 3.629                            | 0.181                              |
| 85 07 29 | EP     | < 0.005                                    | 0.014                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | < 0.002      | 0.988                       | 2.049                            | 0.171                              |
| 85 07 30 | EP     | 0.006                                      | 0.026                     | < 0.005                   | 0.05          | < 0.002       | < 0.002       | < 0.002      | 0.966                       | 3.088                            | 0.167                              |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 07 30 | WMB    | < 0.005                                    | 0.02                      |                           | 0.055         | 0.003         | < 0.003       | 0.005        | 0.966                       | 2.1                              | 0.25                               |
| 85 07 31 | EP     | < 0.005                                    | 0.016                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | < 0.002      | 0.955                       | 2.145                            | 0.165                              |
| 85 08 06 | EP     | 0.018                                      | 0.093                     | < 0.005                   | 0.29          | < 0.002       | < 0.002       | < 0.002      | 0.919                       | 9.211                            | 0.159                              |
| 85 08 12 | LCM    | < 0.02                                     | 0.064                     | 0.001                     |               |               |               |              | 0.949                       | 6.9                              |                                    |
| 85 08 13 | EP     | < 0.005                                    | 0.042                     | < 0.005                   | 0.13          | < 0.002       | < 0.002       | < 0.002      | 0.921                       | 4.138                            | 0.159                              |
| 85 08 20 | EP     | < 0.005                                    | 0.042                     | < 0.005                   | 0.14          | < 0.002       | < 0.002       | < 0.002      | 1.100                       | 4.942                            | 0.19                               |
| 85 08 27 | EP     | < 0.005                                    | 0.052                     | < 0.005                   | 0.11          | < 0.002       | < 0.002       | < 0.002      | 0.070                       | 0.375                            | 0.012                              |
| 85 09 03 | EP     | 0.007                                      | 0.065                     | < 0.005                   | 0.28          | < 0.002       | < 0.002       | 0.039        | 0.940                       | 6.254                            | 0.162                              |
| 85 09 04 | WMB    | 0.005                                      | 0.09                      |                           | 0.125         | 0.006         | < 0.003       | 0.008        | 0.961                       | 7.9                              | 0.50                               |
| 85 09 18 | EP     | < 0.005                                    | 0.12                      | < 0.005                   | 0.140         | < 0.002       |               | 0.003        | 1.71                        | 19.2                             | 0.295                              |
| 85 09 19 | WMB    | < 0.005                                    | 0.15                      |                           | 0.275         | 0.005         | 0.003         | 0.011        | 1.71                        | 22.9                             | 0.74                               |
| 85 09 23 | LCM    | < 0.02                                     | 0.074                     | < 0.001                   |               |               |               |              | 1.46                        | 11.98                            |                                    |
| 85 09 24 | EP     | 0.018                                      | 0.093                     | < 0.005                   | 0.29          | < 0.002       | < 0.002       | < 0.002      | 1.42                        | 14.23                            | 0.245                              |
| 85 10 01 | EP     | < 0.005                                    | 0.063                     | < 0.005                   | 0.13          | < 0.002       | < 0.002       | < 0.002      | 1.180                       | 7.442                            | 0.204                              |
| 85 10 08 | EP     | < 0.005                                    | 0.1                       | < 0.005                   | 0.13          | < 0.002       | < 0.002       | < 0.002      | 1.090                       | 10.36                            | 0.188                              |
| 85 10 13 | EP     | < 0.005                                    | 0.057                     | < 0.005                   | 0.1           | < 0.002       | < 0.002       | < 0.002      | 0.895                       | 5.181                            | 0.155                              |
| 85 10 15 | LCM    | < 0.02                                     | 0.310                     | 0.002                     |               |               |               |              | 0.863                       | 24.0                             |                                    |
| 85 10 22 | EP     | 0.007                                      | 0.081                     | < 0.005                   | 0.11          | < 0.002       | < 0.002       | < 0.002      | 0.894                       | 7.183                            | 0.154                              |
| 85 10 29 | EP     | < 0.005                                    | 0.158                     | < 0.005                   | 0.18          | < 0.002       | < 0.002       | < 0.002      | 1.060                       | 15.39                            | 0.183                              |
| 85 11 05 | EP     | < 0.005                                    | 0.139                     | < 0.005                   | 0.15          | < 0.002       | < 0.002       | < 0.002      | 0.981                       | 12.63                            | 0.17                               |
| 85 11 05 | WMB    | < 0.005                                    | 0.15                      |                           | 0.185         | 0.006         | 0.003         | 0.007        | 0.981                       | 13.14                            | 0.51                               |
| 85 11 12 | LCM    | 0.023                                      | 0.040                     | 0.001                     |               |               |               |              | 0.722                       | 3.99                             |                                    |
| 85 11 12 | EP     | < 0.005                                    | 0.155                     | < 0.005                   | 0.29          | < 0.002       | < 0.002       | < 0.002      | 0.722                       | 10.29                            | 0.125                              |
| 85 12 12 | LCM    | < 0.020                                    | < 0.001                   | < 0.02                    |               |               |               |              | 0.602                       | 2.1                              |                                    |
| 86 01 07 | EP     | 0.009                                      | 0.191                     | < 0.005                   | 0.23          | < 0.002       | 0.006         | 0.004        | 0.470                       | 8.325                            | 0.081                              |
| 86 01 16 | EP     | < 0.005                                    | 0.195                     | < 0.005                   | 0.20          | 0.003         | 0.006         | 0.009        | 0.500                       | 8.856                            | 0.13                               |
| 86 01 21 | EP     | < 0.005                                    | 0.89                      | < 0.005                   | 0.23          | < 0.002       | 0.005         | 0.008        | 0.505                       | 39.27                            | 0.087                              |
| 86 01 27 | LCM    | < 0.020                                    | 0.26                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 86 02 05 | EP     | < 0.005                                    | 0.214                     | < 0.005                   | 0.21          | < 0.002       | 0.004         | 0.004        | 0.452                       | 8.748                            | 0.078                              |
| 86 02 28 | LCM    | < 0.020                                    | 0.24                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 86 02 28 | EP     | < 0.005                                    | 0.177                     | < 0.005                   | 0.23          | 0.003         | 0.004         | 0.006        | 0.590                       | 9.533                            | 0.153                              |
| 86 03 19 | LCM    | < 0.020                                    | 0.12                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 86 03 19 | EP     | 0.006                                      | 0.156                     | < 0.005                   | 0.21          | 0.003         | 0.004         | 0.011        | 0.560                       | 8.08                             | 0.143                              |
| 86 04 08 | EP     | < 0.005                                    | 0.134                     | < 0.005                   | 0.18          | 0.014         | 0.004         | 0.014        |                             |                                  |                                    |

\* - (NO<sub>3</sub> + NO<sub>2</sub>)

TABLE 2

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR LINE CREEK MINE - LINE CREEK UPSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 81 10 01 | LCM    | 0.3                                        | < 0.1                     | 0.3                       |               |               |               |              |                             |                                  |                                    |
| 81 11 10 | LCM    | 0.8                                        | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 81 12 03 | LCM    | 0.6                                        | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 01 12 | LCM    | 0.07                                       | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 02 23 | LCM    | 0.05                                       | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 03 05 | LCM    | 0.1                                        | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 04 21 | LCM    | 0.35                                       | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 05 17 | LCM    | 0.06                                       | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 06 11 | LCM    | 0.14                                       | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 07 28 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 08 30 | LCM    | 0.14                                       | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 09 20 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 10 21 | LCM    | 0.28                                       | 0.20                      | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 11 23 | LCM    | 0.079                                      | 0.22                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 82 12 21 | LCM    | 0.25                                       | 0.095                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 01 19 | LCM    | < 0.05                                     | 0.17                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 83 02 14 | LCM    | < 0.05                                     | 0.13                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 03 11 | LCM    | < 0.01                                     | 0.19                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 04 04 | LCM    | < 0.01                                     | 0.11                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 05 31 | LCM    | < 0.01                                     | 0.12                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 06 14 | LCM    | 0.06                                       | 0.082                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 83 07 19 | LCM    | < 0.010                                    | 0.026                     | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 08 22 | LCM    | < 0.010                                    | < 0.010                   | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 09 19 | LCM    | 0.016                                      | < 0.010                   | 0.018                     |               |               |               |              |                             |                                  |                                    |
| 83 11 29 | LCM    | 0.032                                      | 0.079                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 12 05 | LCM    | < 0.01                                     | 0.081                     | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 84 01 17 | LCM    | < 0.005                                    | 0.22                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 02 20 | LCM    | < 0.020                                    | 0.13                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 03 05 | LCM    | 0.065                                      | 0.12                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 04 02 | LCM    | < 0.02                                     | 0.15                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 05 28 | LCM    | < 0.01                                     | < 0.003                   | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 06 18 | LCM    | < 0.01                                     | 0.086                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |

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TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 07 23 | LCM    | < 0.01                                     | < 0.001                   | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 08 21 | LCM    | < 0.01                                     | 0.053                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 09 25 | LCM    | < 0.01                                     | 0.014                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 10 23 | LCM    | < 0.01                                     | 0.048                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 11 20 | LCM    | < 0.01                                     | 0.071                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 12 18 | LCM    | < 0.01                                     |                           | < 0.01                    |               |               |               |              |                             |                                  |                                    |
| 85 01 28 | LCM    | < 0.02                                     | 0.18                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 02 26 | LCM    | < 0.02                                     | 0.12                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 03 21 | LCM    | < 0.02                                     | 0.18                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 04 16 | LCM    | < 0.02                                     | 0.21                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 85 04 23 | EP     | < 0.005                                    | 0.153                     | < 0.005                   | 0.18          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 04 26 | EP     | < 0.005                                    | 0.151                     | < 0.005                   | 0.15          | 0.003         |               | 0.003        | 0.280                       | 3.89                             | 0.073                              |
| 85 05 14 | LCM    | < 0.02                                     | 0.004                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 05 22 | EP     | 0.007                                      | 0.086                     | < 0.005                   | 0.15          | 0.014         | 0.004         | 0.059        |                             |                                  |                                    |
| 85 05 29 | EP     | < 0.005                                    | 0.03                      | 0.008                     | 0.14          | 0.017         |               | 0.017        | 1.529                       | 5.68                             | 2.2458                             |
| 85 06 10 | LCM    | < 0.002                                    | 0.086                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 06 18 | EP     | < 0.005                                    | 0.033                     | < 0.005                   | 0.05          | < 0.002       | < 0.002       | 0.007        |                             |                                  |                                    |
| 85 06 19 | EP     | 0.006                                      | 0.104                     | < 0.005                   | 0.13          | 0.004         |               | 0.004        | 1.235                       | 12.27                            | 0.427                              |
| 85 07 08 | LCM    | < 0.02                                     | < 0.003                   | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 07 16 | EP     | < 0.005                                    | 0.009                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | 0.003        |                             |                                  |                                    |
| 85 08 12 | LCM    | < 0.02                                     | 0.064                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 85 08 20 | EP     | < 0.005                                    | 0.062                     | < 0.005                   | 0.10          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 09 17 | EP     | < 0.005                                    | 0.067                     | < 0.005                   | 0.16          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 09 18 | EP     | 0.006                                      | 0.107                     | < 0.005                   | 0.123         | < 0.002       |               | 0.004        | 0.669                       | 6.82                             | 0.116                              |
| 85 09 23 | LCM    | < 0.02                                     | 0.044                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 10 15 | LCM    | < 0.02                                     | 0.071                     | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 10 22 | EP     | < 0.005                                    | 0.046                     | < 0.005                   | 0.12          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 11 12 | LCM    | 0.025                                      | 0.096                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 85 12 12 | LCM    | < 0.010                                    | 0.083                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 86 01 27 | LCM    | < 0.020                                    | 0.13                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 86 01 21 | EP     | < 0.005                                    | 0.126                     | < 0.005                   | 0.13          | < 0.002       | 0.005         | 0.004        |                             |                                  |                                    |

TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 86 02 28 | LCM    | < 0.020                                    | 0.14                      | < 0.005                   |               |               |               |              |                             |                                  |                                    |
| 86 02 28 | EP     | < 0.005                                    | 0.144                     | < 0.005                   | 0.16          | < 0.002       | 0.004         | 0.003        |                             |                                  |                                    |
| 86 03 19 | LCM    | < 0.020                                    | 0.22                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 86 13 19 | EP     | < 0.005                                    | 0.132                     | < 0.005                   | 0.15          | < 0.002       | 0.005         | 0.009        |                             |                                  |                                    |

TABLE 3

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR LINE CREEK MINE - POND #4 DISCHARGE

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/l) | NO <sub>3</sub><br>(mg/l) | NO <sub>2</sub><br>(mg/l) | TDN<br>(mg/l) | TDP<br>(mg/l) | SRP<br>(mg/l) | TP<br>(mg/l) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 04 08 | LCM    |                                            |                           |                           |               |               |               |              | 0.0051                      |                                  |                                    |
| 82 04 14 | LCM    |                                            |                           |                           |               |               |               |              | 0.008                       |                                  |                                    |
| 82 04 21 | LCM    | 0.29                                       | < 0.1                     | 0.2                       |               |               |               |              | 0.0122                      | 0.622                            |                                    |
| 82 04 27 | LCM    |                                            |                           |                           |               |               |               |              | 0.0173                      |                                  |                                    |
| 82 05 04 | LCM    |                                            |                           |                           |               |               |               |              | 0.0209                      |                                  |                                    |
| 82 05 14 | LCM    |                                            |                           |                           |               |               |               |              | 0.0276                      |                                  |                                    |
| 82 05 17 | LCM    | < 0.05                                     | < 0.1                     | < 0.1                     |               |               |               |              | 0.0951                      | 2.05                             |                                    |
| 82 05 27 | LCM    |                                            |                           |                           |               |               |               |              | 0.1749                      |                                  |                                    |
| 82 06 03 | LCM    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 82 06 11 | LCM    | 0.18                                       | 0.1                       | 0.1                       |               |               |               |              | 0.1045                      | 3.43                             |                                    |
| 82 06 17 | LCM    |                                            |                           |                           |               |               |               |              | 0.1223                      |                                  |                                    |
| 82 06 29 | LCM    |                                            |                           |                           |               |               |               |              | 0.1159                      |                                  |                                    |
| 82 07 28 | LCM    | < 0.1                                      | < 0.1                     | 0.14                      |               |               |               |              | 0.0877                      | 2.58                             |                                    |
| 82 08 30 | LCM    | 0.1                                        | 0.1                       | 0.1                       |               |               |               |              | 0.0473                      | 1.23                             |                                    |
| 82 09 20 | LCM    | 0.1                                        | < 0.1                     | < 0.1                     |               |               |               |              | 0.0251                      | 0.65                             |                                    |
| 82 10 21 | LCM    | 0.14                                       | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 11 23 | LCM    | 0.23                                       | < 0.01                    | 0.009                     |               |               |               |              |                             |                                  |                                    |
| 82 12 21 | LCM    | 0.12                                       | 0.20                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 01 19 | LCM    | < 0.05                                     | 0.22                      | < 0.002                   |               |               |               |              | 0.0498                      | 1.17                             |                                    |
| 83 02 14 | LCM    | < 0.05                                     | 0.19                      | 0.003                     |               |               |               |              | 0.0498                      | 1.05                             |                                    |
| 83 03 07 | LCM    |                                            |                           |                           |               |               |               |              | 0.0578                      |                                  |                                    |
| 83 03 14 | LCM    | 0.089                                      | 0.18                      | < 0.002                   |               |               |               |              | 0.080                       | 1.87                             |                                    |
| 83 03 21 | LCM    |                                            |                           |                           |               |               |               |              | 0.0833                      |                                  |                                    |
| 83 03 28 | LCM    |                                            |                           |                           |               |               |               |              | 0.100                       |                                  |                                    |
| 83 04 04 | LCM    | < 0.01                                     | 0.16                      | 0.007                     |               |               |               |              | 0.030                       | 0.459                            |                                    |
| 83 04 12 | LCM    |                                            |                           |                           |               |               |               |              | 0.060                       |                                  |                                    |
| 83 04 18 | LCM    |                                            |                           |                           |               |               |               |              | 0.090                       |                                  |                                    |
| 83 04 27 | LCM    |                                            |                           |                           |               |               |               |              | 0.100                       |                                  |                                    |
| 83 05 03 | LCM    |                                            |                           |                           |               |               |               |              | 0.160                       |                                  |                                    |
| 83 05 11 | LCM    |                                            |                           |                           |               |               |               |              | 0.180                       |                                  |                                    |
| 83 05 18 | LCM    |                                            |                           |                           |               |               |               |              | 0.184                       |                                  |                                    |
| 83 05 25 | LCM    |                                            |                           |                           |               |               |               |              | 0.197                       |                                  |                                    |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 05 31 | LCM    | < 0.01                                     | 0.077                     | < 0.002                   |               |               |               |              | 0.200                       | 1.538                            |                                    |
| 83 06 06 | LCM    |                                            |                           |                           |               |               |               |              | 0.1847                      |                                  |                                    |
| 83 06 14 | LCM    | < 0.01                                     | 0.058                     | 0.002                     |               |               |               |              | 0.157                       | 0.950                            |                                    |
| 83 06 20 | LCM    |                                            |                           |                           |               |               |               |              | 0.133                       |                                  |                                    |
| 83 06 27 | LCM    |                                            |                           |                           |               |               |               |              | 0.107                       |                                  |                                    |
| 83 07 19 | LCM    | < 0.01                                     | 0.027                     | < 0.002                   |               |               |               |              | 0.091                       | 0.307                            |                                    |
| 83 08 22 | LCM    | < 0.01                                     | 0.017                     | < 0.002                   |               |               |               |              | 0.0779                      | 0.195                            |                                    |
| 83 09 19 | LCM    | < 0.01                                     | < 0.01                    | 0.003                     |               |               |               |              | 0.0595                      | 0.118                            |                                    |
| 83 11 29 | LCM    | 0.02                                       | 0.13                      | 0.004                     |               |               |               |              | 0.0382                      | 0.508                            |                                    |
| 83 12 05 | LCM    | 0.017                                      | 0.15                      | 0.002                     |               |               |               |              | 0.382                       | 0.558                            |                                    |
| 84 01 17 | LCM    | < 0.005                                    | 0.320                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 02 20 | LCM    | < 0.020                                    | 0.160                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 03 05 | LCM    | < 0.020                                    | 0.180                     | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 84 04 02 | LCM    | < 0.020                                    | 0.200                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 04 30 | LCM    |                                            |                           |                           |               |               |               |              | 0.0370                      |                                  |                                    |
| 84 05 08 | LCM    |                                            |                           |                           |               |               |               |              | 0.0370                      |                                  |                                    |
| 84 05 10 | LCM    | 0.015                                      | 0.130                     | 0.001                     |               |               |               |              | 0.0370                      | 0.467                            |                                    |
| 84 05 15 | LCM    |                                            |                           |                           |               |               |               |              | 0.0370                      |                                  |                                    |
| 84 05 22 | LCM    |                                            |                           |                           |               |               |               |              | 0.105                       |                                  |                                    |
| 84 05 30 | LCM    | < 0.010                                    | 0.037                     | 0.003                     |               |               |               |              | 0.1412                      | 0.610                            |                                    |
| 84 06 05 | LCM    |                                            |                           |                           |               |               |               |              | 0.165                       |                                  |                                    |
| 84 06 11 | LCM    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 84 06 18 | LCM    | < 0.010                                    | 0.210                     | < 0.001                   |               |               |               |              | 0.327                       | 6.24                             |                                    |
| 84 07 23 | LCM    | 0.050                                      | 0.310                     | 0.068                     |               |               |               |              | 0.940                       | 34.76                            |                                    |
| 84 08 21 | LCM    | < 0.010                                    | 0.310                     | < 0.001                   |               |               |               |              | 0.045                       | 1.25                             |                                    |
| 84 09 25 | LCM    | < 0.010                                    | 0.240                     | 0.003                     |               |               |               |              | 0.029                       | 0.634                            |                                    |
| 84 10 23 | LCM    | < 0.010                                    | 0.120                     | 0.001                     |               |               |               |              | 0.023                       | 0.260                            |                                    |
| 84 11 20 | LCM    | < 0.010                                    | 0.210                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 12 18 | LCM    | < 0.010                                    | 0.210                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 01 28 | LCM    | < 0.020                                    | 0.240                     | 0.001                     |               |               |               |              | 0.059                       | 1.33                             |                                    |
| 85 02 26 | LCM    | < 0.020                                    | 0.180                     | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 85 03 21 | LCM    | < 0.020                                    | 0.340                     | 0.002                     |               |               |               |              |                             |                                  |                                    |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 04 16 | LCM    | < 0.020                                    | 1.49                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 04 23 | EP     | < 0.005                                    | 0.54                      | 0.006                     | 0.71          | < 0.002       | < 0.002       | 0.007        |                             |                                  |                                    |
| 85 04 26 | EP     | 0.008                                      | 0.402                     | < 0.005                   | 0.45          | 0.003         |               | 0.007        |                             |                                  |                                    |
| 85 05 14 | LCM    | < 0.020                                    | 0.220                     | 0.004                     |               |               |               |              | 0.085                       | 1.84                             |                                    |
| 85 05 22 | EP     | < 0.005                                    | 0.308                     | 0.009                     | 0.43          | 0.012         | < 0.002       | 0.029        |                             |                                  |                                    |
| 85 05 29 | EP     | < 0.005                                    | 0.144                     | < 0.005                   | 0.28          | 0.005         |               | 0.011        |                             |                                  |                                    |
| 85 06 10 | LCM    | < 0.020                                    | 0.019                     | 0.002                     |               |               |               |              | 0.140                       | 0.496                            |                                    |
| 85 06 18 | EP     | < 0.005                                    | 0.127                     | 0.006                     | 0.20          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 06 19 | EP     | < 0.005                                    | 0.140                     | < 0.005                   | 0.19          | 0.004         |               | 0.004        |                             |                                  |                                    |
| 85 07 08 | LCM    | < 0.020                                    | 0.160                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 07 16 | EP     | 0.007                                      | 0.151                     | 0.008                     | 0.22          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 08 12 | LCM    | 0.032                                      | 0.760                     | 0.006                     |               |               |               |              | 0.037                       | 2.55                             |                                    |
| 85 08 20 | EP     | < 0.005                                    | 0.17                      | < 0.005                   | 0.30          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 09 17 | EP     | 0.006                                      | 0.286                     | < 0.005                   | 0.66          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 09 18 | EP     | < 0.005                                    | 0.54                      | < 0.005                   | 0.63          | < 0.002       |               | 0.004        |                             |                                  |                                    |
| 85 19 23 | LCM    | < 0.020                                    | 0.410                     | < 0.001                   |               |               |               |              | 0.029                       | 1.08                             |                                    |
| 85 10 15 | LCM    | < 0.020                                    | 1.23                      | < 0.001                   |               |               |               |              | 0.027                       | 2.918                            |                                    |
| 85 10 22 | EP     | < 0.005                                    | 0.22                      | < 0.005                   | 0.38          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 11 12 | LCM    | < 0.020                                    | 0.630                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 12 12 | LCM    | < 0.020                                    | 0.170                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 86 01 27 | LCM    | 0.024                                      | 0.33                      | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 86 01 21 | EP     | < 0.005                                    | 0.191                     | < 0.005                   | 0.27          | < 0.002       | 0.004         | 0.006        |                             |                                  |                                    |
| 86 02 28 | LCM    | 0.020                                      | 0.32                      | 0.044                     |               |               |               |              |                             |                                  |                                    |
| 86 03 19 | LCM    | < 0.020                                    | 0.44                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 86 03 28 | EP     | 0.022                                      | 0.293                     | < 0.005                   | 0.37          | 0.005         | 0.006         | 0.18         |                             |                                  |                                    |
| 86 04 18 | EP     | < 0.005                                    | 0.549                     | < 0.005                   | 0.56          | 0.003         | 0.004         | 0.011        |                             |                                  |                                    |

TABLE 4 NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR LINE CREEK MINE - NO NAME CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 03 05 | LCM    | < 0.10                                     | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 04 21 | LCM    | 0.35                                       | < 0.1                     | 0.2                       |               |               |               |              |                             |                                  |                                    |
| 82 05 17 | LCM    | 0.06                                       | 0.2                       | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 06 11 | LCM    | 0.14                                       | < 0.1                     | 0.2                       |               |               |               |              |                             |                                  |                                    |
| 82 07 28 | LCM    | < 0.1                                      | < 0.1                     | < 0.1                     |               |               |               |              |                             |                                  |                                    |
| 82 08 30 | LCM    | 0.1                                        | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 09 30 | LCM    | 0.14                                       | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 10 21 | LCM    | 0.14                                       | 0.1                       | 0.1                       |               |               |               |              |                             |                                  |                                    |
| 82 11 23 | LCM    | 0.28                                       | 0.012                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 82 12 21 | LCM    | < 0.05                                     | 0.063                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 01 19 | LCM    | < 0.05                                     | 0.18                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 02 14 | LCM    | < 0.05                                     | 0.24                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 83 03 14 | LCM    | < 0.01                                     | 0.32                      | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 04 04 | LCM    | < 0.01                                     | 0.30                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 83 05 31 | LCM    | < 0.01                                     | 0.055                     | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 06 14 | LCM    | 0.02                                       | 0.036                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 83 07 19 | LCM    | < 0.01                                     | 0.011                     | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 08 22 | LCM    | < 0.01                                     | 0.017                     | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 09 19 | LCM    | < 0.01                                     | 0.017                     | < 0.002                   |               |               |               |              |                             |                                  |                                    |
| 83 11 29 | LCM    | 0.023                                      | 0.082                     | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 83 12 05 | LCM    | 0.016                                      | 0.037                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 01 17 | LCM    | < 0.005                                    | 0.280                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 02 20 | LCM    | < 0.020                                    | 0.170                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 03 05 | LCM    | 0.024                                      | 0.450                     | 0.010                     |               |               |               |              |                             |                                  |                                    |
| 84 04 02 | LCM    | < 0.020                                    | 0.210                     | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 05 28 | LCM    | < 0.010                                    | < 0.003                   | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 06 18 | LCM    | < 0.010                                    | 0.054                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 07 23 | LCM    | < 0.010                                    | 0.035                     | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 08 21 | LCM    | < 0.010                                    | 0.022                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 09 25 | LCM    | < 0.010                                    | 0.004                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 84 10 23 | LCM    | < 0.010                                    | 0.014                     | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 11 20 | LCM    | < 0.010                                    | 0.080                     | 0.001                     |               |               |               |              |                             |                                  |                                    |

CONTINUED...

TABLE 4 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 12 18 | LCM    | < 0.010                                    | 0.150                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 01 28 | LCM    | < 0.020                                    | 0.120                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 02 26 | LCM    | < 0.020                                    | 0.120                     | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 04 23 | EP     | < 0.005                                    | 0.133                     | 0.006                     | 0.15          | < 0.002       | < 0.002       | 0.008        |                             |                                  |                                    |
| 85 04 26 | EP     | 0.006                                      | 0.132                     | < 0.005                   | 0.15          | 0.003         |               | 0.04         | 0.0711                      | 0.879                            | 0.018                              |
| 85 05 22 | EP     | < 0.005                                    | 0.058                     | 0.006                     | 0.13          | 0.007         | < 0.002       | 0.017        |                             |                                  |                                    |
| 85 05 29 | EP     | < 0.005                                    | 0.03                      | < 0.005                   | 0.10          | 0.021         |               | 0.025        | 1.231                       | 4.25                             | 2.2335                             |
| 85 06 18 | EP     | < 0.005                                    | 0.04                      | 0.006                     | 0.05          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 06 19 | EP     | < 0.005                                    | 0.048                     | < 0.005                   | 0.08          | 0.005         |               | 0.005        |                             |                                  |                                    |
| 85 07 08 | LCM    | < 0.020                                    | < 0.003                   | < 0.001                   |               |               |               |              |                             |                                  |                                    |
| 85 07 16 | EP     | < 0.005                                    | 0.028                     | < 0.005                   | 0.08          | < 0.002       | < 0.002       | 0.003        |                             |                                  |                                    |
| 85 08 20 | EP     | < 0.005                                    | 0.02                      | < 0.005                   | 0.07          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 85 09 17 | EP     | < 0.005                                    | 0.04                      | < 0.005                   | 0.05          |               | < 0.002       | 0.41         |                             |                                  |                                    |
| 85 09 18 | EP     | < 0.005                                    | 0.011                     | < 0.005                   | 0.018         | 0.021         |               | 0.55         | 0.0594                      | 0.108                            | 0.108                              |
| 85 10 22 | EP     | < 0.005                                    | 0.03                      | < 0.005                   | 0.07          | < 0.002       | < 0.002       | < 0.002      |                             |                                  |                                    |
| 86 03 19 | EP     | < 0.005                                    | 0.112                     | < 0.005                   | 0.12          | < 0.002       | 0.004         | 0.026        |                             |                                  |                                    |
| 86 04 08 | EP     | < 0.005                                    | 0.09                      | < 0.005                   | 0.12          | < 0.002       | 0.004         | 0.026        |                             |                                  |                                    |

APPENDIX VI

WESTAR-BALMER NUTRIENT DATA

- INORGANIC NITROGEN LOADING GRAPHS
- NUTRIENT DATA SET



FIGURE 1 HISTORICAL INORGANIC NITROGEN LOADINGS - MICHEL CREEK DOWNSTREAM OF OPERATIONS - 1982 - 1985

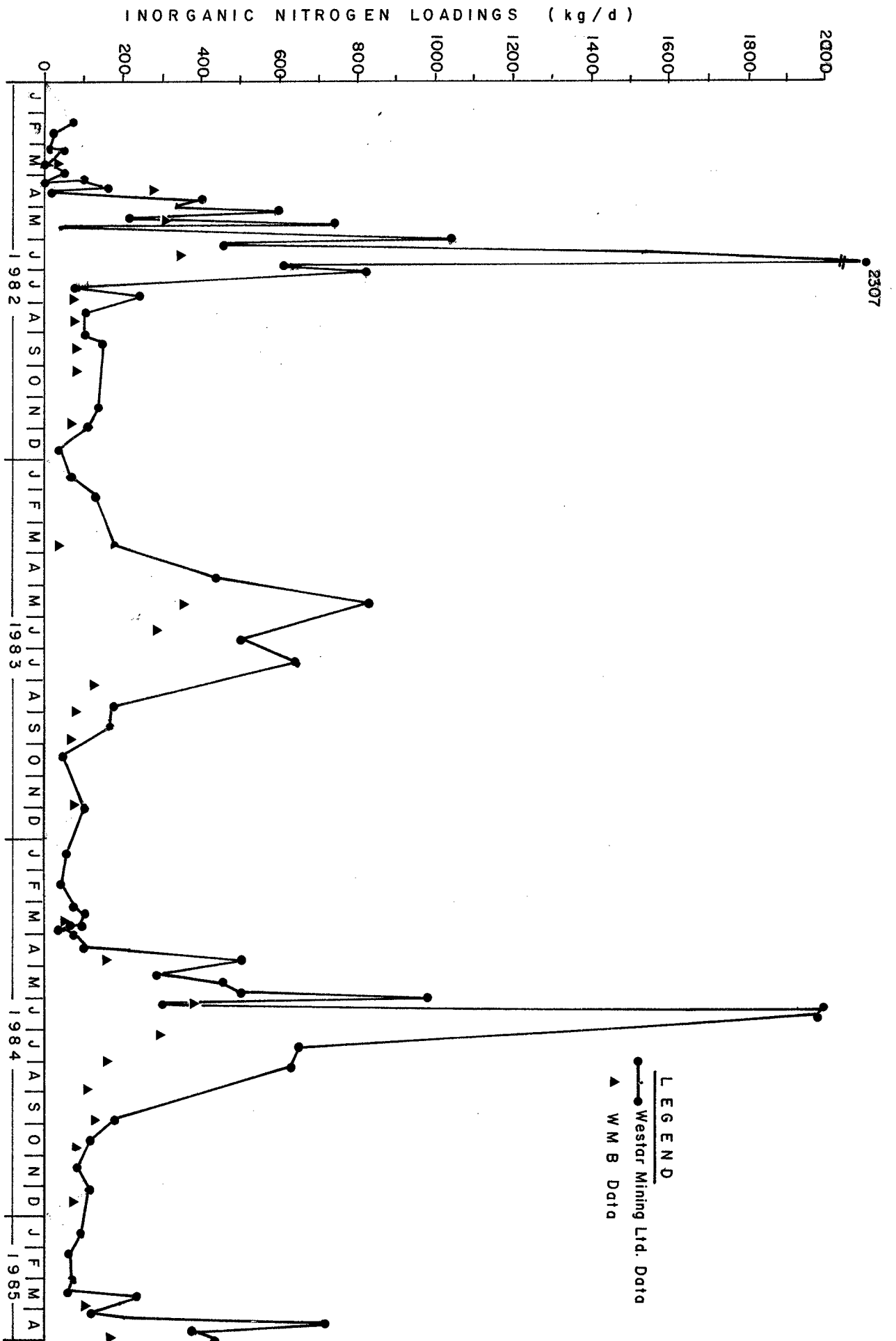
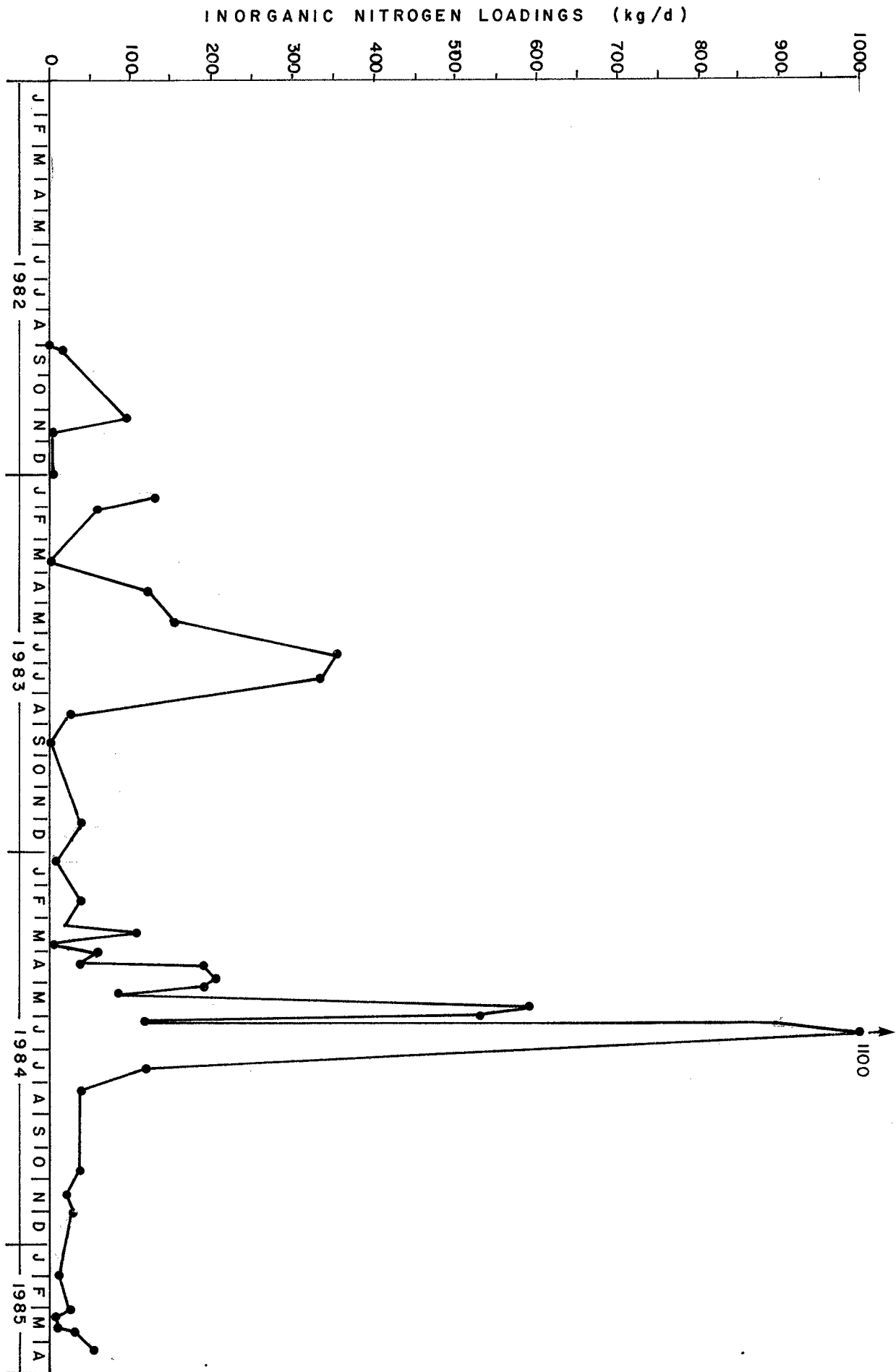


FIGURE 2 HISTORICAL INORGANIC NITROGEN LOADINGS - MICHEL CREEK UPSTREAM OF OPERATIONS - 1982 - 1984



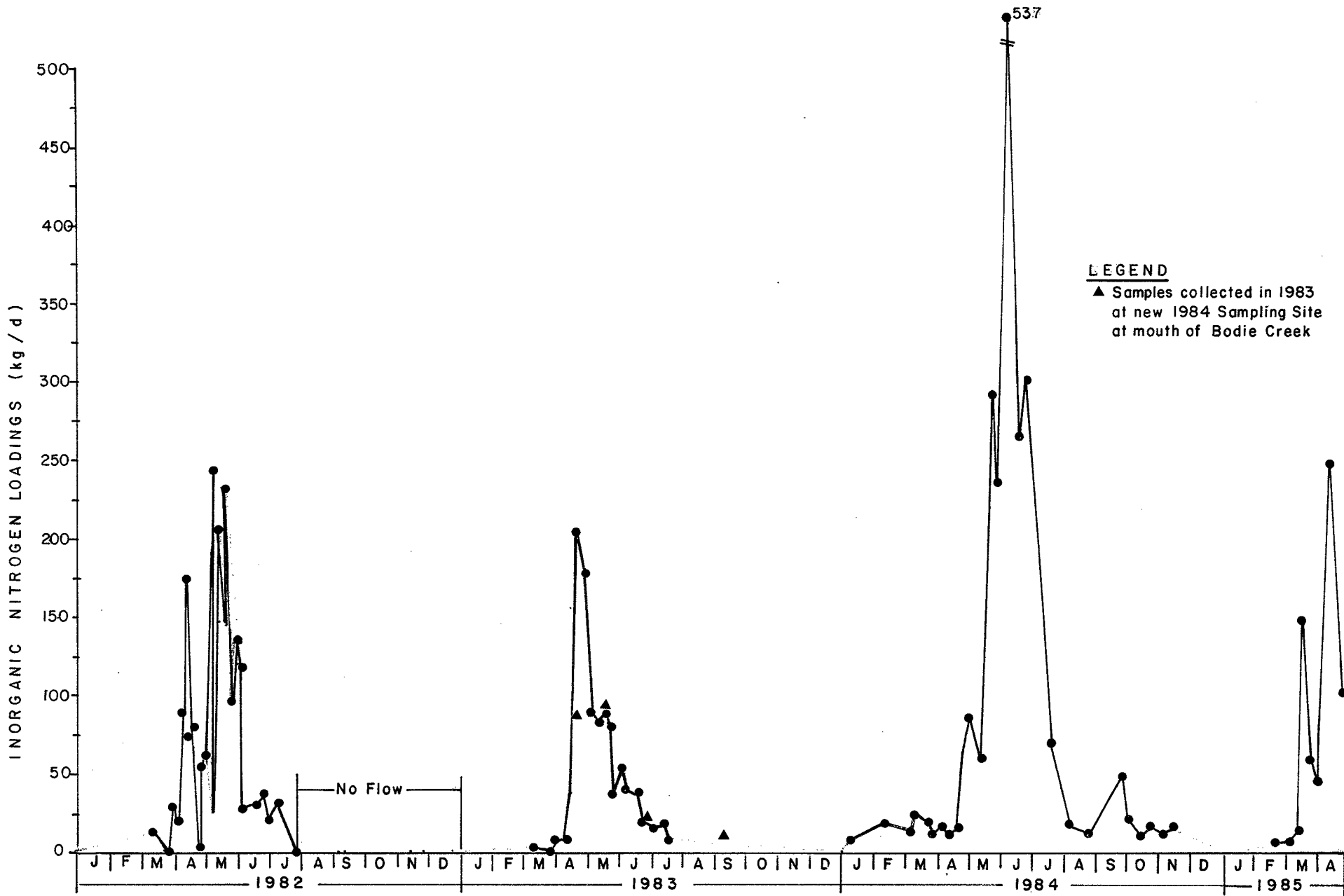
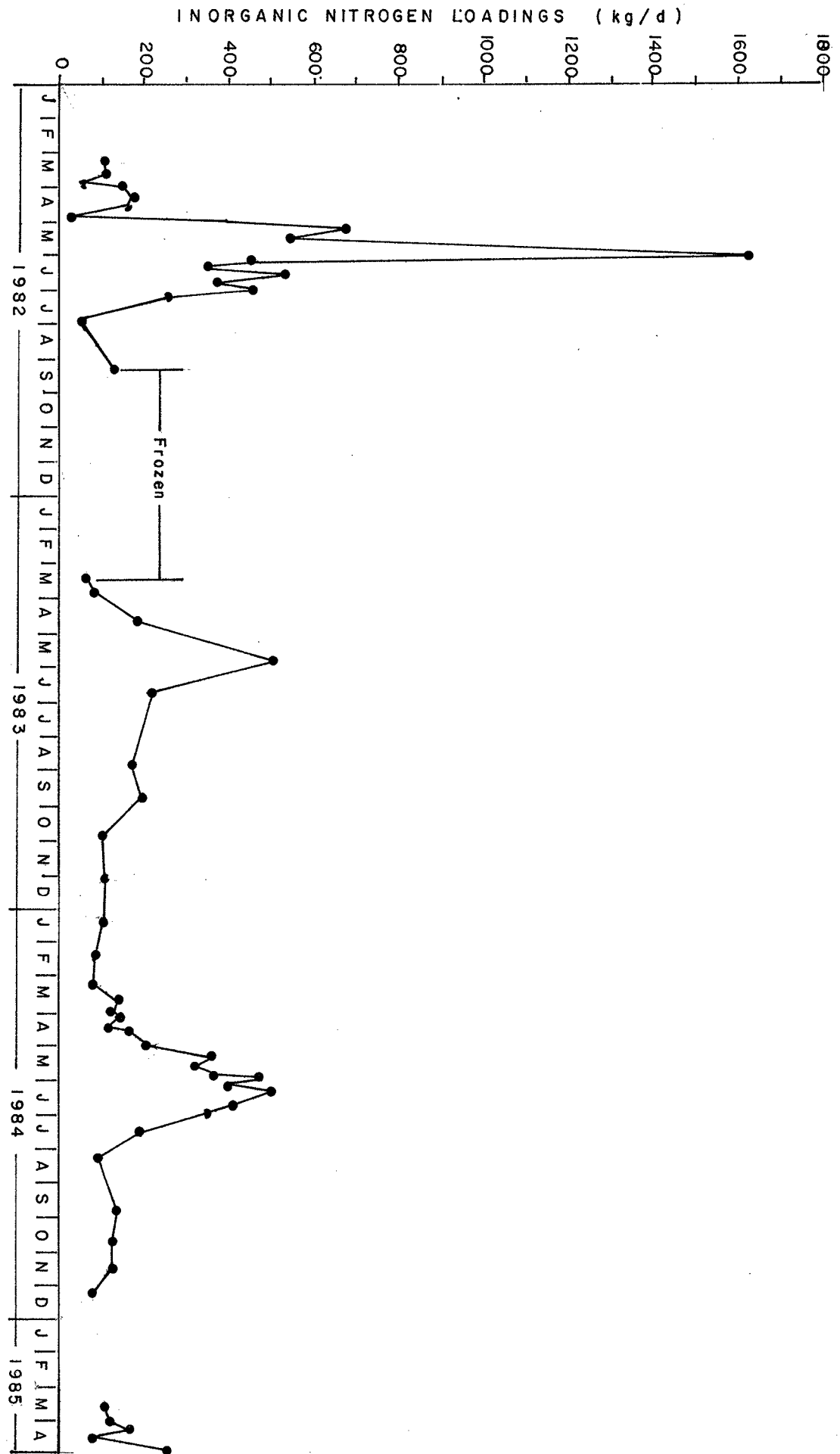


FIGURE 3 HISTORICAL INORGANIC NITROGEN LOADINGS - BODIE CREEK - 1982 - 1985

FIGURE 4 HISTORICAL INORGANIC NITROGEN LOADINGS - HARMER DAM - 1982 - 1985



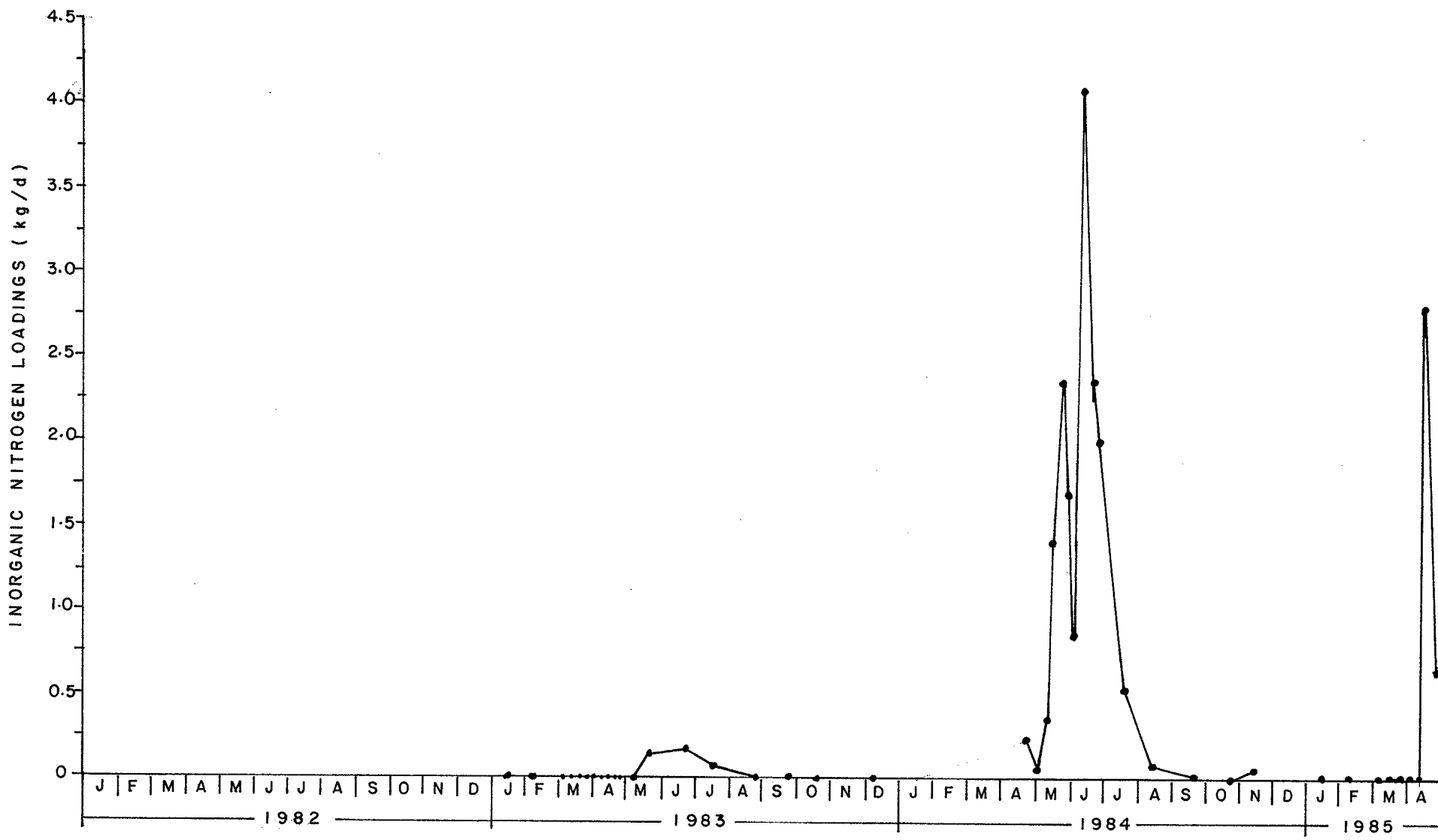


FIGURE 5 HISTORICAL INORGANIC NITROGEN LOADINGS - SIX MILE CREEK - 1982 - 1985

TABLE 1

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - HARMER CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 01 14 | WML    |                                            | 3.41                      |                           |               |               |               |              |                             |                                  |                                    |
| 82 03 03 | WML    | N.D.                                       | 3.48                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 82 03 11 | WML    | N.D.                                       | 2.60                      | 0.004                     |               |               |               |              | 0.496                       | 111.6                            |                                    |
| 82 03 16 | WML    | 0.022                                      | 2.79                      | N.D.                      |               |               |               |              | 0.453                       | 110.1                            |                                    |
| 82 03 25 | WML    | 0.34                                       | 0.87                      | N.D.                      |               |               |               |              | 0.496                       | 51.9                             |                                    |
| 82 03 31 | WML    | 0.09                                       | 3.04                      | N.D.                      |               |               |               |              | 0.552                       | 149.3                            |                                    |
| 82 04 08 | WML    | 0.072                                      | 2.43                      | 0.003                     |               |               |               |              | 0.793                       | 171.6                            |                                    |
| 82 04 15 | WML    | 0.177                                      | 2.62                      | 0.030                     |               |               |               |              | 0.680                       | 166.1                            |                                    |
| 82 04 22 | WML    | 0.013                                      | 0.270                     | 0.020                     |               |               |               |              | 1.133                       | 29.7                             |                                    |
| 82 04 29 | WML    | N.D.                                       | 2.46                      | 0.001                     |               |               |               |              | 1.870                       | 397.6                            |                                    |
| 82 05 06 | WML    | N.D.                                       | 3.58                      | 0.024                     |               |               |               |              | 2.181                       | 679                              |                                    |
| 82 05 12 | WML    | N.D.                                       | 2.80                      | 0.010                     |               |               |               |              | 2.295                       | 557.2                            |                                    |
| 82 05 19 | WML    | N.D.                                       | 2.18                      |                           |               |               |               |              | 3.966                       | 747.0                            |                                    |
| 82 05 26 | WML    | 0.098                                      | 3.80                      | 0.009                     |               |               |               |              | 4.816                       | 1625.7                           |                                    |
| 82 06 02 | WML    | 0.324                                      | 2.00                      | 0.025                     |               |               |               |              | 2.266                       | 459.9                            |                                    |
| 82 06 09 | WML    | 0.232                                      | 2.20                      | 0.032                     |               |               |               |              | 1.643                       | 349.8                            |                                    |
| 82 06 15 | WML    | 0.035                                      | 2.60                      | 0.002                     |               |               |               |              | 2.380                       | 542.3                            |                                    |
| 82 06 24 | WML    | 0.039                                      | 2.80                      | 0.003                     |               |               |               |              | 1.530                       | 375.7                            |                                    |
| 82 06 29 | WML    | 0.024                                      | 3.80                      | 0.003                     |               |               |               |              | 1.416                       | 468.2                            |                                    |
| 82 07 06 | WML    | N.D.                                       | 2.80                      | 0.002                     |               |               |               |              | 1.048                       | 253.7                            |                                    |
| 82 07 26 | WML    | 0.047                                      | 0.900                     | 0.007                     |               |               |               |              | 0.595                       | 49.0                             |                                    |
| 82 08 04 | WML    | 0.020                                      |                           | 0.009                     |               |               |               |              | 0.538                       |                                  |                                    |
| 82 08 26 | WML    |                                            |                           |                           |               |               |               |              | 0.538                       |                                  |                                    |
| 82 09 07 | WML    | 0.480                                      | 2.71                      | 0.001                     |               |               |               |              | 0.496                       | 133.9                            |                                    |
| 82 11 18 | WML    | 0.022                                      | 0.97                      | N.D.                      |               |               |               |              | 0.992                       |                                  |                                    |
| 82 12 08 | WML    | N.D.                                       | 3.12                      | N.D.                      |               |               |               |              | 3.12                        |                                  |                                    |
| 83 01 12 | WML    | 0.010                                      | 3.09                      | N.D.                      |               |               |               |              |                             |                                  |                                    |
| 83 02 01 | WML    | 0.162                                      | 3.07                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 83 03 01 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 83 03 09 | WML    | 0.040                                      | 2.44                      | 0.002                     |               |               |               |              | 0.326                       | 69.9                             |                                    |
| 83 03 16 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 83 03 23 | WML    | 0.372                                      | 2.82                      | N.D.                      |               |               |               |              | 0.326                       | 89.9                             |                                    |

TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 03 30 | WML    |                                            |                           |                           |               |               |               |              | 0.326                       |                                  |                                    |
| 83 04 06 | WML    |                                            |                           |                           |               |               |               |              | 0.354                       |                                  |                                    |
| 83 04 13 | WML    |                                            |                           |                           |               |               |               |              | 0.354                       |                                  |                                    |
| 83 04 20 | WML    | 0.335                                      | 1.94                      | 0.022                     |               |               |               |              | 0.992                       | 196.9                            |                                    |
| 83 04 27 | WML    |                                            |                           |                           |               |               |               |              | 1.303                       |                                  |                                    |
| 83 05 04 | WML    |                                            |                           |                           |               |               |               |              | 1.530                       |                                  |                                    |
| 83 05 11 | WML    |                                            |                           |                           |               |               |               |              | 1.416                       |                                  |                                    |
| 83 05 17 | WML    | N.D.                                       | 3.81                      | 0.004                     |               |               |               |              | 1.558                       | 513.4                            |                                    |
| 83 05 25 | WML    |                                            |                           |                           |               |               |               |              | 3.258                       |                                  |                                    |
| 83 06 01 | WML    |                                            |                           |                           |               |               |               |              | 1.870                       |                                  |                                    |
| 83 06 08 | WML    |                                            |                           |                           |               |               |               |              | 1.671                       |                                  |                                    |
| 83 06 15 | WML    |                                            |                           |                           |               |               |               |              | 1.020                       |                                  |                                    |
| 83 06 21 | WML    | 0.110                                      | 3.20                      | 0.002                     |               |               |               |              | 0.793                       | 226.9                            |                                    |
| 83 06 29 | WML    |                                            |                           |                           |               |               |               |              | 0.595                       |                                  |                                    |
| 83 07 12 | WML    | 0.051                                      | N.D.                      | 0.007                     |               |               |               |              | 0.552                       |                                  |                                    |
| 83 08 23 | WML    | 0.008                                      | 3.54                      | 0.008                     |               |               |               |              | 0.567                       | 174.2                            |                                    |
| 83 09 21 | WML    | 0.022                                      | 4.07                      | 0.005                     |               |               |               |              | 0.561                       | 198.6                            |                                    |
| 83 10 18 | WML    | N.D.                                       | 4.07                      | 0.004                     |               |               |               |              | 0.320                       | 112.6                            |                                    |
| 83 12 06 | WML    | 0.127                                      | 3.94                      | N.D.                      |               |               |               |              | 0.326                       | 114.6                            |                                    |
| 84 01 09 | WML    | 0.014                                      | 3.86                      | 0.002                     |               |               |               |              | 0.326                       | 109.2                            |                                    |
| 84 02 13 | WML    | 0.005                                      | 4.03                      | 0.001                     |               |               |               |              | 0.255                       | 88.9                             |                                    |
| 84 03 05 | WML    | 0.089                                      | 3.73                      |                           |               |               |               |              | 0.255                       | 84.1                             |                                    |
| 84 03 13 | WML    | N.D.                                       | 3.84                      | 0.005                     |               |               |               |              | 0.326                       | 108                              |                                    |
| 84 03 21 | WML    |                                            | 3.89                      |                           |               |               |               |              | 0.436                       | 146.5                            |                                    |
| 84 03 26 | WML    |                                            | 3.95                      |                           |               |               |               |              | 0.385                       | 131.4                            |                                    |
| 84 04 03 | WML    | 0.024                                      | 4.26                      | 0.004                     |               |               |               |              | 0.385                       | 142.6                            |                                    |
| 84 04 09 | WML    | 0.099                                      | 3.53                      | 0.003                     |               |               |               |              | 0.385                       | 120.8                            |                                    |
| 84 04 16 | WML    | 0.078                                      | 2.71                      | 0.012                     |               |               |               |              | 0.694                       | 167.9                            |                                    |
| 84 04 24 | WML    | 0.082                                      | 2.74                      | 0.016                     |               |               |               |              | 0.807                       | 197.8                            |                                    |
| 84 05 01 | WML    | 0.007                                      | 4.55                      | 0.003                     |               |               |               |              | 0.609                       | 239.9                            |                                    |
| 84 05 08 | WML    | 0.115                                      | 6.52                      | 0.002                     |               |               |               |              | 0.623                       | 357.3                            |                                    |

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TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 05 14 | WML    | 0.113                                      | 3.59                      | 0.003                     |               |               |               |              | 0.992                       | 317.6                            |                                    |
| 84 05 23 | WML    | 0.035                                      | 2.90                      | 0.003                     |               |               |               |              | 1.445                       | 366.8                            |                                    |
| 84 05 29 | WML    | 0.136                                      | 2.92                      | 0.004                     |               |               |               |              | 1.813                       | 479.3                            |                                    |
| 84 06 04 | WML    | N.D.                                       | 2.30                      | 0.004                     |               |               |               |              | 1.983                       | 394.7                            |                                    |
| 84 06 11 | WML    | 0.142                                      | 2.44                      | 0.008                     |               |               |               |              | 2.266                       | 507.1                            |                                    |
| 84 06 18 | WML    | 0.058                                      | 2.07                      | 0.008                     |               |               |               |              | 2.210                       | 407.9                            |                                    |
| 84 06 25 | WML    | 0.057                                      | 2.39                      | 0.008                     |               |               |               |              | 1.756                       | 372.5                            |                                    |
| 84 07 16 | WML    | 0.076                                      | 2.81                      | 0.006                     |               |               |               |              | 0.722                       | 180.4                            |                                    |
| 84 08 07 | WML    | 0.127                                      | 2.00                      | 0.001                     |               |               |               |              | 0.524                       | 96.3                             |                                    |
| 84 09 24 | WML    | 0.124                                      | 3.80                      | 0.003                     |               |               |               |              | 0.411                       | 139.4                            |                                    |
| 84 10 22 | WML    | 0.128                                      | 3.95                      | 0.004                     |               |               |               |              | 0.374                       | 131.9                            |                                    |
| 84 11 13 | WML    | 0.049                                      | 3.94                      | 0.041                     |               |               |               |              | 0.374                       | 130.2                            |                                    |
| 84 12 03 | WML    | 0.092                                      | 3.76                      | 0.026                     |               |               |               |              | 0.374                       | 89.1                             |                                    |
| 85 01 15 | WML    |                                            |                           |                           |               |               |               |              | INACCE                      | SIBLE                            |                                    |
| 85 02 04 | WML    |                                            |                           |                           |               |               |               |              | INACCE                      | SIBLE                            |                                    |
| 85 03 04 | WML    |                                            |                           |                           |               |               |               |              | INACCE                      | SIBLE                            |                                    |
| 85 03 11 | WML    |                                            |                           |                           |               |               |               |              | INACCE                      | SIBLE                            |                                    |
| 85 03 18 | WML    | 0.003                                      | 3.76                      | 0.010                     |               |               |               |              | 0.326                       | 106.2                            |                                    |
| 85 03 25 | WML    | 0.049                                      | 4.20                      | 0.001                     |               |               |               |              | 0.317                       | 116.4                            |                                    |
| 85 04 01 | WML    | 0.082                                      | 4.01                      | 0.003                     |               |               |               |              | 0.354                       | 125.2                            |                                    |
| 85 04 01 | EP     | 0.008                                      | 4.0                       | < 0.005                   | 4.3           | < 0.002       | < 0.002       | 0.01         | 0.3653                      | 126.7                            | 0.063                              |
| 85 04 08 | WML    | 0.084                                      | 3.95                      | 0.003                     |               |               |               |              | 0.465                       | 162.2                            |                                    |
| 85 04 08 | EP     | 0.011                                      | 4.0                       | < 0.005                   | 4.0           | < 0.002       | < 0.002       | 0.024        | 0.4871                      | 169                              | 0.084                              |
| 85 04 15 | WML    | 0.200                                      | 1.93                      | 0.005                     |               |               |               |              | 0.436                       | 80.4                             |                                    |
| 85 04 15 | EP     | 0.022                                      | 1.8                       | 0.006                     | 2.0           | 0.004         | 0.004         | 0.033        | 0.455                       | 71.86                            | 0.157                              |
| 85 04 22 | WML    | 0.059                                      | 3.09                      | 0.003                     |               |               |               |              | 0.921                       | 250.8                            |                                    |
| 85 04 22 | EP     | 0.022                                      | 4.70                      | 0.009                     | 5.7           | 0.004         | < 0.002       | 0.009        | 0.951                       | 388.7                            | 0.329                              |
| 85 04 25 | EP     | 0.007                                      | 5.33                      | < 0.005                   | 5.6           | 0.003         |               | 0.005        | 1.143                       | 528.0                            | 0.296                              |
| 85 04 30 | WML    | N.D.                                       | 3.20                      | 0.005                     |               |               |               |              | 1.275                       | 353.1                            |                                    |
| 85 04 30 | EP     | 0.005                                      | 2.8                       | < 0.005                   | 4.1           | 0.003         | < 0.002       | < 0.002      | 1.334                       | 323.9                            | 0.346                              |
| 85 05 06 | WML    | 0.164                                      | 2.85                      | 0.001                     |               |               |               |              | 1.586                       | 413.1                            |                                    |
| 85 05 06 | EP     | < 0.005                                    | 2.3                       | < 0.005                   | 3.1           | < 0.002       | 0.003         | 0.005        | 1.671                       | 333.5                            | 0.289                              |



TABLE 1 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 13 | WML    | 0.078                                      | 3.62                      | 0.001                     |               |               |               |              | 1.473                       | 470.8                            |                                    |
| 85 05 13 | EP     | 0.006                                      | 7.95                      | < 0.005                   | 3.8           | < 0.002       | < 0.002       | 0.012        | 1.512                       | 1040                             | 0.261                              |
| 85 05 21 | WML    | N.D.                                       | 1.79                      | 0.002                     |               |               |               |              | 3.116                       | 482.4                            |                                    |
| 85 05 21 | EP     | 0.003                                      | 2.13                      | < 0.005                   | 2.7           | < 0.002       | < 0.002       | 0.087        | 3.101                       | 572.8                            | 0.536                              |
| 85 05 27 | WML    | 0.237                                      | 1.94                      | 0.002                     |               |               |               |              | 2.210                       | 416.1                            |                                    |
| 85 05 27 | EP     | < 0.005                                    | 2.13                      | 0.021                     | 2.2           | < 0.002       | < 0.002       | 0.012        | 2.135                       | 397.7                            | 0.369                              |
| 85 05 28 | EP     | < 0.005                                    | 1.53                      | 0.005                     | 2.3           | 0.003         |               | 0.009        | 1.951                       | 260.0                            | 0.5057                             |
| 85 06 03 | WML    | 0.008                                      | 2.49                      | 0.001                     |               |               |               |              | 1.643                       | 354.8                            |                                    |
| 85 06 03 | EP     | 0.017                                      | 2.3                       | 0.30                      | 2.9           | 0.004         | 0.005         | 0.022        | 1.654                       | 374.0                            | 0.572                              |
| 85 06 10 | WML    | 0.335                                      | 2.17                      | 0.003                     |               |               |               |              | 1.513                       | 327.9                            |                                    |
| 85 06 10 | EP     | 0.017                                      | 2.98                      | 0.019                     | 3.0           | < 0.002       | < 0.002       | 0.012        | 1.512                       | 394.0                            | 0.261                              |
| 85 06 17 | WML    | 0.370                                      | 2.24                      | 0.006                     |               |               |               |              | 1.068                       | 241.4                            |                                    |
| 85 06 17 | EP     | 0.01                                       | 3.32                      | < 0.005                   | 3.7           | < 0.002       | < 0.002       | 0.002        | 1.068                       | 307.7                            | 0.185                              |
| 85 06 18 | EP     | 0.009                                      | 1.80                      | 0.006                     | 2.8           | 0.003         |               | 0.008        | 1.290                       | 202.3                            | 0.334                              |
| 85 06 18 | WML    | N.D.                                       | 2.41                      | 0.007                     |               |               |               |              | 1.127                       | 235.4                            |                                    |
| 85 06 18 | EP     | 0.017                                      | 1.39                      | 0.007                     | 3.0           | 0.003         | 0.004         | 0.006        | 1.512                       | 184.7                            | 0.392                              |
| 85 06 24 | WML    | 0.056                                      | 2.69                      | 0.006                     |               |               |               |              | 0.822                       | 195.4                            |                                    |
| 85 06 24 | EP     | 0.011                                      | 1.73                      | 0.009                     | 1.8           | < 0.002       | 0.003         | 0.01         | 0.821                       | 124.1                            | 0.142                              |
| 85 07 15 | WML    | N.D.                                       | 2.70                      | 0.010                     |               |               |               |              | 0.516                       | 120.8                            |                                    |
| 85 07 15 | EP     | 0.011                                      | 2.59                      | 0.009                     | 2.9           | 0.007         | 0.004         | 0.016        | 0.515                       | 116.1                            | 0.311                              |
| 85 08 12 | WML    | 0.177                                      | 2.65                      | 0.022                     |               |               |               |              | 0.382                       | 94.0                             |                                    |
| 85 08 12 | EP     | 0.017                                      | 2.90                      | 0.06                      | 3.9           | < 0.002       | < 0.002       | 0.004        | 0.368                       | 94.65                            | 0.064                              |
| 85 09 16 | WML    | 0.063                                      | 2.80                      | 0.003                     |               |               |               |              | 0.482                       | 119.4                            |                                    |
| 85 09 16 | EP     | 0.007                                      | 3.0                       | < 0.005                   | 3.0           | < 0.002       | < 0.002       | 0.009        | 0.481                       | 125.2                            | 0.083                              |
| 85 09 16 | EP     | 0.013                                      | 3.0                       | < 0.005                   | 3.2           | 0.004         |               | 0.011        | 0.481                       | 125.4                            | 0.166                              |
| 85 10 21 | WML    | 0.097                                      | 3.32                      | 0.009                     |               |               |               |              | Frozen                      |                                  |                                    |
| 85 11 26 | WML    | 0.057                                      | 2.40                      | 0.007                     |               |               |               |              | Frozen                      |                                  |                                    |
| 85 11 26 | EP     | 0.015                                      | 3.3                       | < 0.005                   | 3.7           | 0.005         | 0.004         | 0.006        | Frozen                      |                                  |                                    |
| 85 12 11 | WML    | 0.207                                      | 3.83                      | 0.003                     |               |               |               |              | Frozen                      |                                  |                                    |
| 85 12 17 | EP     | 0.013                                      | 3.205                     | < 0.005                   | 3.6           | 0.005         | 0.004         | 0.007        | Frozen                      |                                  |                                    |
| 86 01 16 | WML    | 0.123                                      | 3.20                      | 0.006                     |               |               |               |              | Frozen                      |                                  |                                    |

**TABLE 1** (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 86 01 16 | EP     | 0.007                                      | 3.215                     | < 0.005                   | 3.8           | < 0.002       | 0.004         | 0.006        | Frozen                      |                                  |                                    |
| 86 02 19 | WML    |                                            |                           |                           |               |               |               |              | Inaccessible                |                                  |                                    |
| 86 03 06 | WML    | < 0.010                                    | 3.060                     | 0.004                     |               |               |               |              | 0.623                       | 165.5                            |                                    |
| 86 03 11 | EP     | < 0.005                                    | 2.51                      | < 0.005                   | 3.5           | < 0.002       | < 0.002       | < 0.002      | 0.657e                      | 143.0                            | 0.114                              |
| 86 03 13 | WML    | 0.100                                      | 3.00                      | 0.003                     |               |               |               |              | 0.657                       | 176.1                            |                                    |
| 86 03 18 | WML    | 0.058                                      | 3.47                      | 0.006                     |               |               |               |              | 0.595                       | 181.7                            |                                    |
| 86 03 25 | WML    | 0.022                                      | 3.59                      | 0.007                     |               |               |               |              | 0.609                       | 190.4                            |                                    |

e-estimated

TABLE 2 NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - ERICKSON CREEK AT MOUTH

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 03 04 | WML    | 0.070                                      | 3.89                      | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 82 03 08 | WML    | 0.032                                      | 3.03                      | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 82 03 19 | WML    | ND                                         | 3.08                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 03 22 | WML    | 0.134                                      | 1.02                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 82 03 29 | WML    | 0.09                                       | 3.08                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 04 07 | WML    | 0.017                                      | 2.96                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 04 12 | WML    |                                            | 2.71                      |                           |               |               |               |              |                             |                                  |                                    |
| 82 04 23 | WML    | 0.018                                      | 2.52                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 04 26 | WML    | ND                                         | 0.443                     | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 82 05 04 | WML    | 0.438                                      | 1.99                      | 0.010                     |               |               |               |              |                             |                                  |                                    |
| 82 05 13 | WML    | 0.480                                      | 6.80                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 05 17 | WML    | ND                                         | 3.29                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 05 27 | WML    | 0.070                                      | 5.74                      | 0.011                     |               |               |               |              |                             |                                  |                                    |
| 82 06 03 | WML    | ND                                         | 4.01                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 06 07 | WML    | 0.149                                      | 3.65                      | 0.017                     |               |               |               |              |                             |                                  |                                    |
| 82 06 18 | WML    | ND                                         | 5.30                      | 0.012                     |               |               |               |              |                             |                                  |                                    |
| 82 06 23 | WML    | 0.365                                      | 0.040                     | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 82 06 30 | WML    | ND                                         | 5.70                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 82 07 26 | WML    | 0.040                                      | 7.80                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 82 08 09 | WML    | 0.022                                      | 6.2                       | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 09 01 | WML    | ND                                         | 7.5                       | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 82 09 07 | WML    | 0.099                                      | 3.94                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 11 09 | WML    | 0.32                                       | 3.84                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 82 11 23 | WML    | 0.010                                      | 4.02                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 82 12 21 | WML    | ND                                         | 1.36                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 83 01 18 | WML    | 1.38                                       | 4.38                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 83 02 01 | WML    | 0.060                                      | 4.55                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 83 03 22 | WML    | ND                                         | 3.69                      | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 83 04 18 | WML    | 0.236                                      | 3.20                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 83 05 16 | WML    | 0.286                                      | 4.11                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 83 06 14 | WML    | 0.090                                      | 5.11                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 83 06 20 | WML    | 0.105                                      | 5.27                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 07 12 | WML    | 0.038                                      | 4.89                      | 0.003                     |               |               |               |              |                             |                                  |                                    |

TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 08 23 | WML    | ND                                         | 5.10                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 09 14 | WML    | ND                                         | 4.88                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 83 10 12 | WML    | ND                                         | 4.96                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 83 12 05 | WML    | 0.105                                      | 5.49                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 03 05 | WML    | 0.052                                      | 6.73                      |                           |               |               |               |              |                             |                                  |                                    |
| 84 03 13 | WML    | 0.012                                      | 7.40                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 84 04 02 | WML    | 0.009                                      | 8.60                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 04 09 | WML    | 0.110                                      | 5.33                      | 0.010                     |               |               |               |              |                             |                                  |                                    |
| 84 04 16 | WML    | ND                                         | 6.00                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 84 04 23 | WML    | 0.192                                      | 5.75                      | 0.015                     |               |               |               |              |                             |                                  |                                    |
| 84 05 01 | WML    | 0.089                                      | 6.25                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 05 08 | WML    | 0.113                                      | 14.7                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 05 14 | WML    | 0.027                                      | 7.00                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 84 05 22 | WML    | 0.215                                      | 6.25                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 05 28 | WML    | 0.018                                      | 6.70                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 06 04 | WML    | 0.027                                      | 4.65                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 84 06 11 | WML    | 0.262                                      | 9.10                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 06 18 | WML    | 0.071                                      | 10.05                     | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 84 06 25 | WML    | 0.064                                      | 10.7                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 84 07 04 | WML    | 0.157                                      | 12.3                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 84 07 09 | WML    | 0.107                                      | 13.6                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 84 07 16 | WML    | 0.045                                      | 8.50                      | 0.009                     |               |               |               |              |                             |                                  |                                    |
| 84 07 30 | WML    | 0.073                                      | 3.95                      | 0.015                     |               |               |               |              |                             |                                  |                                    |
| 84 08 07 | WML    | 0.020                                      | 9.50                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 84 08 27 | WML    | 0.060                                      | 9.05                      | 0.017                     |               |               |               |              |                             |                                  |                                    |
| 84 10 01 | WML    | 0.022                                      | 9.00                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 84 10 22 | WML    | 0.140                                      | 7.15                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 84 11 13 | WML    | 0.120                                      | 7.90                      | 0.044                     |               |               |               |              |                             |                                  |                                    |
| 84 12 03 | WML    | 0.191                                      | 9.00                      | 0.018                     |               |               |               |              |                             |                                  |                                    |
| 85 01 15 | WML    | 0.012                                      | 8.90                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 85 02 04 | WML    | 0.033                                      | 2.60                      | 0.016                     |               |               |               |              |                             |                                  |                                    |
| 85 03 05 | WML    | 0.169                                      | 7.85                      | ND                        |               |               |               |              |                             |                                  |                                    |
| 85 03 11 | WML    | ND                                         | 7.90                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 03 18 | WML    | ND                                         | 8.20                      | 0.005                     |               |               |               |              |                             |                                  |                                    |

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TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 03 25 | WML    | ND                                         | 9.05                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 04 01 | WML    | 0.025                                      | 8.80                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 85 04 01 | EP     | < 0.005                                    | 5.40                      | < 0.005                   | 7.9           | < 0.002       | < 0.002       | 0.009        |                             |                                  |                                    |
| 85 04 08 | WML    | 0.126                                      | 5.70                      | 0.009                     |               |               |               |              |                             |                                  |                                    |
| 85 04 08 | EP     | 0.006                                      | 6.90                      | < 0.005                   | 8.5           | < 0.002       | < 0.002       | 0.023        |                             |                                  |                                    |
| 85 04 15 | WML    | 0.043                                      | 7.50                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 04 15 | EP     | 0.001                                      | 6.80                      | < 0.005                   | 8.8           | < 0.002       | 0.003         | 0.012        |                             |                                  |                                    |
| 85 04 22 | WML    | 0.066                                      | 6.60                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 85 04 22 | EP     | 0.007                                      | 6.7                       | 0.005                     | 9.90          | < 0.002       | 0.003         | 0.012        |                             |                                  |                                    |
| 85 04 25 | EP     | < 0.005                                    | 7.74                      | < 0.005                   | 11            | 0.009         |               | 0.013        | 0.161                       | 107.81                           | 0.125                              |
| 85 04 30 | WML    | 0.008                                      | 7.90                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 85 04 30 | EP     | 0.009                                      | 5.90                      | < 0.005                   | 10.0          | < 0.002       | 0.004         | 0.005        |                             |                                  |                                    |
| 85 05 06 | WML    | 0.074                                      | 9.40                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 85 05 06 | EP     | < 0.005                                    | 6.91                      | < 0.005                   | 8.9           | < 0.002       | 0.005         | 0.007        |                             |                                  |                                    |
| 85 05 13 | WML    | 1.09                                       | 9.40                      | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 85 05 13 | EP     | 0.006                                      | 8.08                      | < 0.005                   | 10.0          | < 0.002       | 0.006         | 0.031        |                             |                                  |                                    |
| 85 05 21 | WLM    | 1.93                                       | 8.90                      | 0.011                     |               |               |               |              |                             |                                  |                                    |
| 85 05 21 | EP     | < 0.005                                    | 7.64                      | < 0.005                   | 10.0          | < 0.002       | 0.008         | 0.012        |                             |                                  |                                    |
| 85 05 27 | WML    | 5.43                                       | 8.95                      | 0.044                     |               |               |               |              |                             |                                  |                                    |
| 85 05 27 | EP     | < 0.005                                    | 4.82                      | < 0.005                   | 6.6           | < 0.002       | < 0.002       | 0.009        |                             |                                  |                                    |
| 85 05 27 | EP     | 0.006                                      | 5.27                      | < 0.005                   | 8.0           | 0.013         |               | 0.016        | 0.351                       | 160.2                            | 0.3944                             |
| 85 06 03 | WML    | 0.950                                      | 10.3                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 06 03 | EP     | < 0.005                                    | 6.78                      | 0.3                       | 6.6           | 0.01          | 0.006         | 0.021        |                             |                                  |                                    |
| 85 06 10 | WML    | 3.55                                       | 11.2                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 06 10 | EP     | 0.007                                      | 2.39                      | 0.009                     |               |               |               |              |                             |                                  |                                    |
| 85 06 17 | WML    | 1.30                                       | 9.55                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 06 17 | EP     | 0.007                                      | 3.3                       | 0.009                     | 10.0          | < 0.002       | 0.003         | 0.014        |                             |                                  |                                    |
| 85 06 17 | EP     | < 0.005                                    | 9.7                       | 0.007                     | 11.0          | 0.013         |               | 0.015        | 0.217                       | 182.1                            | 0.244                              |
| 85 06 24 | WML    | 1.00                                       | 9.13                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 85 06 24 | EP     | < 0.005                                    | 7.47                      | 0.009                     | 9.50          | 0.003         | 0.005         | 0.019        |                             |                                  |                                    |
| 85 07 15 | WML    | ND                                         | 8.90                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 85 07 15 | EP     | < 0.005                                    | 8.59                      | 0.009                     | 10.0          | 0.006         | 0.004         | 0.006        |                             |                                  |                                    |
| 85 08 12 | WML    | 0.109                                      | 10.5                      | 0.003                     |               |               |               |              |                             |                                  |                                    |

TABLE 2 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 08 12 | EP     | < 0.005                                    | 7.4                       | 0.06                      | 11.0          | 0.004         | 0.004         | 0.014        | 0.119                       | 106.4                            | 0.164                              |
| 85 09 16 | WML    | 0.043                                      | 8.86                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 85 09 16 | EP     | < 0.005                                    | 9.1                       | < 0.005                   | 12.0          | 0.006         | 0.006         | 0.017        |                             |                                  |                                    |
| 85 09 16 | EP     | < 0.005                                    | 11.0                      | < 0.005                   | 11.0          | 0.017         |               | 0.017        |                             |                                  |                                    |
| 85 10 21 | WML    | 0.020                                      | 9.65                      | 0.003                     |               |               |               |              |                             |                                  |                                    |
| 85 10 21 | EP     | 0.007                                      | 9.17                      | < 0.005                   | 9.3           | < 0.002       | 0.005         | 0.014        |                             |                                  |                                    |
| 85 11 27 | WML    | 0.080                                      | 6.89                      | 0.006                     |               |               |               |              |                             |                                  |                                    |
| 85 11 27 | EP     | < 0.005                                    | 6.815                     | < 0.005                   | 10.0          | 0.012         | 0.01          | 0.024        |                             |                                  |                                    |
| 85 12 11 | WML    | 0.021                                      | 9.00                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 85 12 11 | EP     | < 0.005                                    | 7.015                     | < 0.005                   | 10.0          | 0.009         | 0.01          | 0.018        |                             |                                  |                                    |
| 86 01 16 | WML    | < 0.010                                    | 9.40                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 86 01 16 | EP     | < 0.005                                    | 10.5                      | < 0.005                   | 11.0          | 0.006         | 0.011         | 0.016        |                             |                                  |                                    |
| 86 02 19 | WML    | < 0.01                                     | 7.50                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 86 02 19 | EP     | < 0.005                                    | 8.16                      | < 0.005                   | 10.0          | 0.004         | < 0.002       | < 0.002      |                             |                                  |                                    |
| 86 03 06 | WML    | 0.087                                      | 15.7                      | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 86 03 13 | WML    | 0.010                                      | 8.00                      | 0.002                     |               |               |               |              |                             |                                  |                                    |
| 86 03 18 | WML    | 0.082                                      | 9.85                      | 0.005                     |               |               |               |              |                             |                                  |                                    |
| 86 03 18 | EP     | < 0.005                                    | 8.84                      | < 0.005                   | 9.9           | 0.006         | < 0.002       | < 0.002      |                             |                                  |                                    |
| 86 03 25 | WML    | 0.848                                      | 9.50                      | 0.067                     |               |               |               |              |                             |                                  |                                    |

ND - non-detectable

TABLE 3

NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - MICHEL CREEK DOWNSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 81 01 07 | WML    |                                            | 0.055                     |                           |               |               |               |              | 5.15                        | 24.5                             |                                    |
| 81 01 21 | WML    |                                            | 0.19                      |                           |               |               |               |              | 3.37                        | 55.3                             |                                    |
| 81 02 04 | WML    |                                            | 0.24                      |                           |               |               |               |              | 2.69                        | 55.8                             |                                    |
| 81 02 08 | WML    |                                            | 0.283                     |                           |               |               |               |              | 1.98                        | 48.4                             |                                    |
| 81 03 04 | WML    |                                            | 0.160                     |                           |               |               |               |              | 2.91                        | 40.2                             |                                    |
| 81 03 10 | WML    |                                            |                           |                           |               |               |               |              | 2.63                        |                                  |                                    |
| 81 03 18 | WML    |                                            | 0.120                     |                           |               |               |               |              | 4.11                        | 42.6                             |                                    |
| 81 03 24 | WML    |                                            |                           |                           |               |               |               |              | 3.71                        |                                  |                                    |
| 81 04 01 | WML    |                                            |                           |                           |               |               |               |              | 4.67                        |                                  |                                    |
| 81 04 06 | WML    |                                            |                           |                           |               |               |               |              | 4.34                        |                                  |                                    |
| 81 04 14 | WML    |                                            | 0.210                     |                           |               |               |               |              | 4.50                        | 81.6                             |                                    |
| 81 04 29 | WML    |                                            | ND                        |                           |               |               |               |              | 26.1                        |                                  |                                    |
| 81 05 08 | WML    |                                            |                           |                           |               |               |               |              | 26.3                        |                                  |                                    |
| 81 05 12 | WML    |                                            |                           |                           |               |               |               |              | 23.5                        |                                  |                                    |
| 81 05 14 | WML    |                                            | 0.44                      |                           |               |               |               |              | 26.3                        | 999.8                            |                                    |
| 81 05 19 | WMB    | 0.033                                      | 0.24*                     |                           | 0.383         | 0.019         | 0.014         | 0.066        | 51.0                        | 1202.9                           | 83.7                               |
| 81 05 20 | WML    |                                            |                           |                           |               |               |               |              | 64.6                        |                                  |                                    |
| 81 05 28 | WML    |                                            |                           |                           |               |               |               |              | 83.0                        |                                  |                                    |
| 81 06 04 | WML    |                                            |                           |                           |               |               |               |              | 62.0                        |                                  |                                    |
| 81 06 09 | WMB    | 0.009                                      | 0.12*                     |                           | 0.139         | 0.017         | 0.015         | 0.030        | 39.4                        | 439.1                            | 57.9                               |
| 81 06 11 | WML    |                                            | 0.14                      |                           |               |               |               |              | 31.1                        | 376.2                            |                                    |
| 81 06 18 | WML    |                                            |                           |                           |               |               |               |              | 39.4                        |                                  |                                    |
| 81 06 25 | WML    |                                            | 0.810                     |                           |               |               |               |              | 31.1                        | 2176.5                           |                                    |
| 81 06 26 | WML    |                                            |                           |                           |               |               |               |              | 31.1                        |                                  |                                    |
| 81 07 02 | WML    |                                            | 0.310                     |                           |               |               |               |              | 28.3                        | 758.0                            |                                    |
| 81 07 07 | WML    |                                            | 0.310                     |                           |               |               |               |              | 21.7                        | 581.0                            |                                    |
| 81 07 09 | WML    | 0.490                                      |                           |                           |               |               |               |              | 17.7                        |                                  |                                    |
| 81 07 10 | WML    |                                            |                           |                           |               |               |               |              | 16.2                        |                                  |                                    |
| 81 07 14 | WMB    | 0.014                                      | 0.13*                     |                           | 0.154         | 0.011         | 0.007         | 0.016        | 14.3                        | 177.9                            | 13.6                               |
| 81 07 22 | WML    | 0.028                                      |                           |                           |               |               |               |              | 11.7                        |                                  |                                    |
| 81 07 23 | WML    |                                            |                           |                           |               |               |               |              | 10.1                        |                                  |                                    |
| 81 08 06 | WML    | 0.005                                      |                           |                           |               |               |               |              | 6.49                        | 259.1                            |                                    |

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TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 81 08 06 | WMB    | 0.027                                      | 0.18                      |                           | 0.247         | 0.009         | 0.004         | 0.013        | 6.49                        | 116.1                            | 5.05                               |
| 81 08 20 | WML    | ND                                         |                           |                           |               |               |               |              | 4.56                        |                                  |                                    |
| 81 09 02 | WMB    | 0.031                                      | 0.35                      |                           | 0.591         | 0.007         | 0.004         | 0.012        | 3.79                        | 124.8                            | 2.29                               |
| 81 09 03 | WML    | 0.018                                      |                           |                           |               |               |               |              | 3.72                        |                                  |                                    |
| 81 09 16 | WML    | 0.242                                      |                           |                           |               |               |               |              | 2.99                        |                                  |                                    |
| 81 09 29 | WML    | 0.440                                      |                           |                           |               |               |               |              | 3.50                        |                                  |                                    |
| 81 09 29 | WML    | 0.111                                      |                           |                           |               |               |               |              | 3.50                        |                                  |                                    |
| 81 10 06 | WMB    | 0.034                                      | 0.35                      |                           | 0.494         | 0.006         | 0.004         | 0.008        | 3.72                        | 123.4                            | 1.93                               |
| 81 10 15 | WML    | 0.062                                      |                           |                           |               |               |               |              | 2.99                        |                                  |                                    |
| 81 10 21 | WML    | 0.020                                      |                           |                           |               |               |               |              | 2.93                        |                                  |                                    |
| 81 10 30 | WML    | 0.007                                      | 0.060                     |                           |               |               |               |              | 2.80                        | 14.5                             |                                    |
| 81 11 12 | WML    | 0.068                                      |                           |                           |               |               |               |              | 2.54                        |                                  |                                    |
| 81 11 18 | WML    |                                            |                           |                           |               |               |               |              | 2.54                        |                                  |                                    |
| 81 11 24 | WMB    | 0.060                                      | 0.33                      |                           | 0.420         | 0.006         | 0.004         | 0.007        | 2.41                        | 81.2                             | 1.25                               |
| 81 11 25 | WML    | 0.110                                      |                           |                           |               |               |               |              | 2.32                        |                                  |                                    |
| 81 12 09 | WML    | 0.098                                      |                           |                           |               |               |               |              | 2.35                        |                                  |                                    |
| 82 02 10 | WML    |                                            | 0.520                     |                           |               |               |               |              | 1.61                        | 72.3                             |                                    |
| 82 03 04 | WML    | 0.105                                      | 0.190                     | 0.053                     |               |               |               |              | 1.50                        | 45.1                             |                                    |
| 82 03 08 | WML    | 0.118                                      | 0.144                     | 0.004                     |               |               |               |              | 1.36                        | 31.3                             |                                    |
| 82 03 16 | WMB    | 0.080                                      | 0.21                      |                           | 0.30          | 0.006         | 0.03          | 0.006        | 1.27                        | 31.8                             | 0.66                               |
| 82 03 19 | WML    | 0.113                                      | 0.120                     | 0.04                      |               |               |               |              | 1.18                        | 24.9                             |                                    |
| 82 03 22 | WML    | 0.022                                      | 0.08                      | ND                        |               |               |               |              | 1.19                        | 10.5                             |                                    |
| 82 03 29 | WML    | 0.08                                       | 0.24                      | 0.002                     |               |               |               |              | 1.90                        | 52.9                             |                                    |
| 82 04 07 | WML    | 0.072                                      | 0.700                     | 0.006                     |               |               |               |              | 1.63                        | 109.6                            |                                    |
| 82 04 12 | WML    | ND                                         | 0.523                     |                           |               |               |               |              | 3.42                        | 154.5                            |                                    |
| 82 04 14 | WMB    | 0.024                                      | 1.02                      |                           | 1.204         | 0.008         | 0.005         | 0.020        | 3.12                        | 281.4                            | 2.16                               |
| 82 04 23 | WML    | 0.585                                      | 0.260                     | 0.004                     |               |               |               |              | 5.27                        | 386.6                            |                                    |
| 82 04 26 | WML    | ND                                         | 0.640                     | 0.007                     |               |               |               |              | 6.31                        | 352.7                            |                                    |
| 82 05 04 | WML    | ND                                         | 0.400                     | 0.016                     |               |               |               |              | 16.4                        | 589.5                            |                                    |
| 82 05 13 | WMB    | 0.016                                      | 0.17                      |                           | 0.366         | 0.013         | 0.009         | 0.043        | 19.2                        | 308.6                            | 21.6                               |
| 82 05 13 | WML    | ND                                         | 0.450                     | ND                        |               |               |               |              | 19.2                        | 746.5                            |                                    |
| 82 05 17 | WML    | ND                                         | 0.005                     | 0.005                     |               |               |               |              | 51.9                        | 44.8                             |                                    |
| 82 05 27 | WML    | ND                                         | 0.240                     | 0.004                     |               |               |               |              | 49.6                        | 1045.6                           |                                    |
| 82 06 03 | WML    | 0.068                                      | 0.040                     | 0.002                     |               |               |               |              | 48.4                        | 460.                             |                                    |



TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 06 07 | WML    | 0.169                                      | 0.240                     | 0.012                     |               |               |               |              | 42.3                        | 1538.6                           |                                    |
| 82 06 15 | WMB    | 0.007                                      | 0.060                     |                           | 0.177         | 0.022         | 0.018         | 0.066        | 61.6                        | 356.6                            | 117.1                              |
| 82 06 18 | WML    | 0.160                                      | 0.40                      | 0.001                     |               |               |               |              | 47.6                        | 2307                             |                                    |
| 82 06 23 | WML    | 0.110                                      | 0.100                     | 0.003                     |               |               |               |              | 35.1                        | 646.0                            |                                    |
| 82 06 30 | WML    | ND                                         | 0.380                     | ND                        |               |               |               |              | 25.4                        | 833.9                            |                                    |
| 82 07 26 | WML    | 0.127                                      | 0.350                     | 0.004                     |               |               |               |              | 6.12                        | 254.3                            |                                    |
| 82 07 28 | WMB    | 0.020                                      | 0.13                      |                           | 0.250         | 0.006         | 0.006         | 0.013        | 5.35                        | 69.3                             | 2.7                                |
| 82 08 09 | WML    | 0.078                                      | 0.20                      | 0.007                     |               |               |               |              | 4.42                        | 108.8                            |                                    |
| 82 08 18 | WMB    | 0.026                                      | 0.21                      | 0.306                     |               | 0.007         | 0.005         | 0.011        | 3.71                        | 75.6                             | 2.2                                |
| 82 09 01 | WML    | ND                                         | 0.390                     | 0.002                     |               |               |               |              | 2.97                        | 100.6                            |                                    |
| 82 09 07 | WML    | 0.131                                      | 0.400                     | ND                        |               |               |               |              | 3.34                        | 153.2                            |                                    |
| 82 09 15 | WMB    | 0.022                                      | 0.23                      | 0.332                     | 0.252         | 0.006         | 0.003         | 0.008        | 3.56                        | 77.5                             | 1.85                               |
| 82 10 06 | WMB    | 0.024                                      | 0.22                      | 0.344                     | 0.244         | 0.006         | 0.003         | 0.007        | 3.70                        | 78.2                             | 1.9                                |
| 82 11 09 | WML    | 0.083                                      | 0.480                     | 0.020                     |               |               |               |              | 2.80                        | 141.0                            |                                    |
| 82 11 23 | WML    | 0.041                                      | 0.580                     | 0.004                     |               |               |               |              | 2.25                        | 121.5                            |                                    |
| 82 11 24 | WMB    | 0.039                                      | 0.36                      | 0.549                     | 0.399         | 0.009         | 0.004         | 0.009        | 2.10                        | 72.4                             | 1.63                               |
| 82 12 21 | WML    | 0.160                                      | 0.015                     | ND                        |               |               |               |              | 2.14                        | 32.4                             |                                    |
| 83 01 18 | WML    | 0.178                                      | 0.270                     | ND                        |               |               |               |              | 1.838                       | 71.1                             |                                    |
| 83 02 01 | WML    | 0.370                                      | 0.410                     | 0.002                     |               |               |               |              | 1.91                        | 129.0                            |                                    |
| 83 03 10 | WML    |                                            |                           |                           |               |               |               |              | 2.66                        |                                  |                                    |
| 83 03 21 | WMB    | 0.030                                      | 0.14                      |                           | 0.220         | 0.005         | 0.003         | 0.011        | 2.31                        | 33.9                             | 1.00                               |
| 83 03 22 | WML    | 0.550                                      | 0.330                     | 0.005                     |               |               |               |              | 2.33                        | 178.1                            |                                    |
| 83 03 28 | WML    |                                            |                           |                           |               |               |               |              | 2.28                        |                                  |                                    |
| 83 04 04 | WML    |                                            |                           |                           |               |               |               |              | 2.29                        |                                  |                                    |
| 83 04 11 | WML    |                                            |                           |                           |               |               |               |              | 2.72                        |                                  |                                    |
| 83 04 18 | WML    | 0.150                                      | 0.787                     | 0.004                     |               |               |               |              | 5.51                        | 448.0                            |                                    |
| 83 04 26 | WML    |                                            |                           |                           |               |               |               |              | 22.3                        |                                  |                                    |
| 83 05 02 | WML    |                                            |                           |                           |               |               |               |              | 13.2                        |                                  |                                    |
| 83 05 10 | WML    |                                            |                           |                           |               |               |               |              | 16.2                        |                                  |                                    |
| 83 05 16 | WML    | 0.031                                      | 0.366                     | 0.003                     |               |               |               |              | 24.2                        | 836.4                            |                                    |
| 83 05 18 | WMB    | 0.009                                      | 0.12                      |                           | 0.309         | 0.015         | 0.010         | 0.046        | 31.9                        | 355.5                            | 41.34                              |
| 83 05 27 | WML    |                                            |                           |                           |               |               |               |              | 98.5                        |                                  |                                    |
| 83 06 02 | WML    |                                            |                           |                           |               |               |               |              | 53.5                        |                                  |                                    |
| 83 06 07 | WML    |                                            |                           |                           |               |               |               |              | 43.3                        |                                  |                                    |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 06 14 | WMB    | 0.016                                      | 0.12                      |                           | 0.176         | 0.018         | 0.011         | 0.024        | 24.3                        | 285.5                            | 37.8                               |
| 83 06 14 | WML    |                                            |                           |                           |               |               |               |              | 24.3                        | 514                              |                                    |
| 83 06 20 | WML    | 0.049                                      | 0.320                     | 0.025                     |               |               |               |              | 15.1                        |                                  |                                    |
| 83 06 27 | WML    |                                            |                           |                           |               |               |               |              | 13.6                        |                                  |                                    |
| 83 07 12 | WML    | 0.078                                      | 0.667                     | 0.013                     |               |               |               |              | 10.1                        | 661.5                            |                                    |
| 83 08 03 | WMB    | 0.147                                      | 0.13                      |                           | 0.337         | 0.010         | 0.003         | 0.016        | 5.38                        | 128.8                            | 4.65                               |
| 83 08 23 | WML    | ND                                         | 0.560                     | 0.004                     |               |               |               |              | 3.46                        | 168.6                            |                                    |
| 83 08 30 | WMB    | 0.028                                      | 0.27                      |                           | 0.408         | 0.009         | 0.005         | 0.013        | 3.17                        | 81.6                             | 2.47                               |
| 83 09 14 | WML    | 0.055                                      | 0.70                      | 0.004                     |               |               |               |              | 2.66                        | 174.4                            |                                    |
| 83 09 26 | WMB    | 0.017                                      | 0.29                      |                           | 0.377         | 0.006         | 0.003         | 0.007        | 2.37                        | 62.9                             | 1.23                               |
| 83 10 12 | WML    | 0.008                                      | 0.267                     | 0.004                     |               |               |               |              | 2.31                        | 55.7                             |                                    |
| 83 11 29 | WMB    | 0.034                                      | 0.34                      |                           | 0.444         | 0.009         | 0.004         | 0.010        | 2.40                        | 77.6                             | 1.87                               |
| 83 12 05 | WML    | 0.102                                      | 0.549                     | 0.003                     |               |               |               |              | 1.90                        | 107.4                            |                                    |
| 84 01 03 | WML    | 0.013                                      | 0.325                     | 0.001                     |               |               |               |              | 2.10                        | 61.5                             | 0.73                               |
| 84 02 13 | WML    | 0.128                                      | 0.453                     | 0.002                     |               |               |               |              | 1.03                        | 51.9                             | 12.5                               |
| 84 03 05 | WML    | 0.079                                      | 0.473                     |                           |               |               |               |              | 1.72                        | 82.0                             |                                    |
| 84 03 13 | WML    | ND                                         | 0.540                     | 0.002                     |               | ND            |               |              | 2.23                        | 104.4                            |                                    |
| 84 03 20 | WMB    | 0.027                                      | 0.28                      |                           | 0.377         | 0.005         | 0.003         | 0.010        | 2.03                        | 53.8                             | 0.88                               |
| 84 03 21 | WML    |                                            | 0.405                     |                           |               |               |               |              | 2.55                        | 89.2                             |                                    |
| 84 03 26 | WML    |                                            | 0.270                     |                           |               |               |               |              | 2.15                        | 50.1                             |                                    |
| 84 04 03 | WML    | 0.050                                      | 0.475                     | 0.003                     |               |               |               |              | 2.03                        | 92.6                             |                                    |
| 84 04 09 | WML    | 0.127                                      | 0.273                     | 0.019                     |               |               |               |              | 2.79                        | 101.0                            |                                    |
| 84 04 16 | WML    | 0.016                                      | 0.340                     | 0.007                     |               |               |               |              | 6.92                        | 217.0                            |                                    |
| 84 04 24 | WMB    | 0.010                                      | 0.15                      |                           | 0.250         | 0.014         | 0.008         | 0.018        | 11.1                        | 153.4                            | 13.4                               |
| 84 04 24 | WML    | 0.186                                      | 0.325                     | 0.027                     |               | ND            |               |              | 11.1                        | 516.0                            |                                    |
| 84 05 01 | WML    | 0.090                                      | 0.660                     | 0.009                     |               |               |               |              | 6.14                        | 402.6                            |                                    |
| 84 05 08 | WML    | ND                                         | 0.393                     | 0.003                     |               |               |               |              | 8.52                        | 291.5                            |                                    |
| 84 05 14 | WML    | 0.085                                      | 0.270                     | 0.004                     |               |               |               |              | 14.7                        | 455.9                            |                                    |
| 84 05 23 | WML    | ND                                         | 0.195                     | 0.003                     |               |               |               |              | 29.3                        | 501.2                            |                                    |
| 84 05 29 | WML    | 0.014                                      | 0.315                     | 0.003                     |               |               |               |              | 34.6                        | 992                              |                                    |
| 84 06 04 | WML    | 0.021                                      | 0.085                     | 0.002                     |               |               |               |              | 33.2                        | 309.8                            |                                    |
| 84 06 05 | WMB    | 0.008                                      | 0.120                     |                           | 0.248         | 0.024         | 0.014         | 0.041        | 34.6                        | 382.6                            | 71.75                              |
| 84 06 11 | WML    | 0.142                                      | 0.505                     | 0.006                     |               |               |               |              | 35.5                        | 2002.8                           |                                    |
| 84 06 18 | WML    | 0.044                                      | 0.550                     | 0.003                     |               |               |               |              | 38.7                        | 1996.                            |                                    |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 06 25 | WML    | 0.132                                      | 0.540                     | 0.006                     |               |               |               |              | 28.5                        | 1669.5                           |                                    |
| 84 07 03 | WMB    | 0.011                                      | 0.23                      |                           | 0.327         | 0.10          | 0.005         | 0.013        | 14.1                        | 293.6                            | 12.18                              |
| 84 07 16 | WML    | 0.334                                      | 0.650                     | 0.224                     |               |               |               |              | 6.34                        | 661.7                            |                                    |
| 84 08 01 | WMB    | 0.019                                      | 0.43                      |                           | 0.539         | 0.009         | 0.003         | 0.010        | 4.02                        | 156.0                            | 3.13                               |
| 84 08 07 | WML    | 0.118                                      | 0.390                     | 0.001                     |               |               |               |              | 4.28                        | 634.9                            |                                    |
| 84 08 28 | WMB    | 0.023                                      | 0.53                      |                           | 0.633         | 0.006         | 0.003         | 0.012        | 2.15                        | 102.7                            | 1.12                               |
| 84 09 24 | WML    | 0.074                                      | 0.600                     | 0.005                     |               | 0.034         |               |              | 3.17                        | 185.9                            | 9.3                                |
| 84 09 26 | WMB    | 0.020                                      | 0.49                      |                           | 0.54          | 0.005         | 0.003         | 0.005        | 2.98                        | 131.3                            | 1.29                               |
| 84 10 22 | WML    | 0.148                                      | 0.453                     | 0.005                     |               | 0.016         |               |              | 2.30                        | 120.4                            | 3.18                               |
| 84 10 24 | WMB    | 0.010                                      | 0.42                      |                           | 0.470         | 0.004         | 0.003         | 0.004        | 2.26                        | 83.9                             | 0.78                               |
| 84 11 13 | WML    | 0.113                                      | 0.455                     | 0.011                     |               | 0.077         |               |              | 1.69                        | 84.5                             | 11.2                               |
| 84 12 03 | WML    | 0.293                                      | 0.700                     | 0.017                     |               | 0.013         |               |              | 1.36                        | 118.7                            | 1.53                               |
| 84 12 18 | WMB    | 0.056                                      | 0.57                      |                           | 0.676         | 0.004         | 0.003         | 0.007        | 1.21                        | 65.4                             | 0.42                               |
| 85 01 15 | WML    | ND                                         | 0.620                     | 0.004                     |               | ND            |               |              | 1.66                        | 89.5                             |                                    |
| 85 02 04 | WML    | 0.028                                      | 0.690                     | 0.012                     |               | 0.012         |               |              | 1.15                        | 72.5                             | 1.19                               |
| 85 03 05 | WML    | 0.149                                      | 0.460                     | 0.003                     |               | 0.042         |               |              | 1.36                        | 71.9                             | 4.94                               |
| 85 03 11 | WML    | ND                                         | 0.565                     | 0.003                     |               |               |               |              | 1.36                        | 66.7                             |                                    |
| 85 03 18 | WML    | 0.071                                      | 1.30                      | 0.024                     |               |               |               |              | 2.02                        | 243.5                            |                                    |
| 85 03 25 | WML    | 0.071                                      | 0.990                     | 0.010                     |               |               |               |              | 2.05                        | 189.7                            |                                    |
| 85 03 28 | WMB    | 0.045                                      | 0.67                      |                           | 0.775         | 0.007         | 0.005         | 0.008        | 1.64                        | 101.3                            | 0.99                               |
| 85 04 01 | WML    | ND                                         | 0.710                     | 0.006                     |               |               |               |              | 1.72                        | 106.4                            |                                    |
| 85 04 01 | EP     | 0.011                                      | 0.39                      | < 0.005                   | 0.73          | < 0.002       | < 0.002       | 0.009        | 1.720                       | 60.33                            | 0.297                              |
| 85 04 02 | EP     | 0.034                                      | 0.50                      | < 0.005                   | 0.64          | 0.003         | < 0.002       | 0.01         | 2.260                       | 105.2                            | 0.586                              |
| 85 04 03 | EP     | 0.026                                      | 0.37                      | < 0.005                   | 0.17          | 0.05          | 0.029         | 0.05         | 3.150                       | 109.1                            | 13.61                              |
| 85 04 04 | EP     | 0.028                                      | 0.52                      | < 0.005                   | 0.52          | 0.036         | 0.020         | 0.079        | 3.100                       | 148.1                            | 9.642                              |
| 85 04 05 | EP     | 0.021                                      | 0.44                      | < 0.005                   | 0.55          | 0.025         | 0.015         | 0.078        | 2.960                       | 119.2                            | 6.394                              |
| 85 04 08 | WML    | 0.087                                      | 0.690                     | 0.008                     |               |               |               |              | 3.05                        | 206.8                            |                                    |
| 85 04 08 | EP     | 0.041                                      | 0.75                      | < 0.005                   | 0.79          | < 0.002       | < 0.002       | 0.016        | 3.050                       | 209.8                            | 0.527                              |
| 85 04 09 | EP     | 0.044                                      | 0.71                      | 0.006                     | 0.78          | < 0.002       | < 0.002       | 0.014        | 4.190                       | 275.1                            | 0.724                              |
| 85 04 10 | EP     | 0.041                                      | 0.66                      | 0.006                     | 0.71          | 0.004         | 0.003         | 0.032        | 5.470                       | 334.1                            | 1.89                               |
| 85 04 11 | EP     | 0.033                                      | 0.64                      | 0.009                     | 0.75          | 0.007         | 0.008         | 0.068        | 8.800                       | 518.5                            | 5.322                              |
| 85 04 12 | EP     | 0.054                                      | 0.52                      | 0.009                     | 0.64          | 0.008         | 0.011         | 0.056        | 10.400                      | 523.9                            | 7.188                              |
| 85 04 15 | WML    | 0.014                                      | 0.410                     | 0.005                     |               | 0.016         |               |              | 19.5                        | 722.8                            | 26.9                               |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 04 15 | EP     | 0.028                                      | 0.301                     | < 0.005                   | 0.49          | 0.007         | 0.005         | 0.053        | 19.500                      | 562.7                            | 11.79                              |
| 85 04 16 | EP     | 0.028                                      | 0.298                     | < 0.005                   | 0.49          | 0.008         | 0.006         | 0.039        | 14.300                      | 409                              | 9.884                              |
| 85 04 17 | EP     | 0.024                                      | 0.249                     | < 0.005                   | 0.37          | 0.006         | 0.005         | 0.026        | 13.900                      | 333.9                            | 7.206                              |
| 85 04 18 | EP     | 0.027                                      | 0.274                     | < 0.005                   | 0.42          | 0.005         | 0.005         | 0.022        | 11.800                      | 312                              | 5.098                              |
| 85 04 19 | EP     | 0.026                                      | 0.348                     | < 0.005                   | 0.49          | 0.005         | 0.004         | 0.018        | 10.200                      | 334                              | 4.406                              |
| 85 04 22 | WML    | 0.040                                      | 0.600                     | 0.003                     |               |               |               |              | 7.08                        | 393.3                            |                                    |
| 85 04 22 | EP     | 0.029                                      | 0.369                     | < 0.005                   | 0.49          | < 0.002       | < 0.002       | 0.006        | 7.080                       | 246.5                            | 1.223                              |
| 85 04 23 | EP     | 0.023                                      | 0.351                     | < 0.005                   | 0.51          | < 0.002       | < 0.002       | 0.003        | 6.800                       | 222.7                            | 1.175                              |
| 85 04 24 | EP     | 0.025                                      | 0.393                     | < 0.005                   | 0.51          | < 0.002       | < 0.002       | 0.008        | 6.170                       | 225.5                            | 1.066                              |
| 85 04 24 | WMB    | 0.024                                      | 0.29                      |                           | 0.404         | 0.008         | 0.003         | 0.009        | 6.170                       | 167.4                            | 4.26                               |
| 85 04 25 | EP     | 0.029                                      | 0.411                     | < 0.005                   | 0.59          | < 0.002       | < 0.002       | 0.006        | 5.770                       | 221.8                            | 0.997                              |
| 85 04 25 | EP     | 0.025                                      | 0.40                      | < 0.005                   | 0.49          | 0.003         |               | 0.004        | 5.770                       | 214.4                            | 1.50                               |
| 85 04 26 | EP     | 0.038                                      | 0.382                     | < 0.005                   | 0.60          | 0.006         | < 0.002       | 0.005        | 8.890                       | 326.4                            | 4.609                              |
| 85 04 29 | EP     | 0.022                                      | 0.23                      | < 0.005                   | 0.42          | 0.006         | 0.003         | 0.003        | 14.500                      | 322.0                            | 7.517                              |
| 85 04 30 | WML    | 0.053                                      | 0.265                     | 0.003                     |               |               |               |              | 15.800                      | 438.1                            |                                    |
| 85 04 30 | EP     | 0.022                                      | 0.228                     | < 0.005                   | 0.40          | 0.005         | 0.003         | 0.005        | 15.800                      | 348.1                            | 6.826                              |
| 85 05 01 | EP     | 0.02                                       | 0.222                     | < 0.005                   | 0.36          | 0.004         | 0.004         | 0.004        | 17.100                      | 364.9                            | 5.91                               |
| 85 05 02 | EP     | 0.017                                      | 0.188                     | < 0.005                   | 0.33          | 0.005         | 0.006         | 0.011        | 24.700                      | 448.2                            | 10.67                              |
| 85 05 03 | EP     | 0.016                                      | 0.194                     | < 0.005                   | 0.34          | 0.006         | 0.011         | 0.021        | 36.100                      | 670.6                            | 18.71                              |
| 85 05 06 | WML    | 0.046                                      | 0.295                     | 0.002                     |               | 0.038         |               |              | 22.50                       | 666.8                            | 73.9                               |
| 85 05 06 | EP     | 0.014                                      | 0.201                     | < 0.005                   | 0.34          | < 0.002       | 0.005         | 0.015        | 21.200                      | 403                              | 3.663                              |
| 85 05 07 | EP     | 0.012                                      | 0.194                     | < 0.005                   | 0.033         | 0.006         | 0.004         | 0.006        | 21.800                      | 397.4                            | 11.3                               |
| 85 05 08 | EP     | 0.006                                      | 0.187                     | < 0.005                   | 0.31          | 0.003         | 0.004         | 0.007        | 23.200                      | 396.9                            | 6.013                              |
| 85 05 09 | EP     | 0.012                                      | 0.126                     | < 0.005                   | 0.33          | 0.003         | < 0.002       | 0.023        | 24.200                      | 299                              | 6.273                              |
| 85 05 10 | EP     | 0.011                                      | 0.114                     | < 0.005                   | 0.32          | 0.004         | < 0.002       | 0.029        | 26.300                      | 295.4                            | 9.089                              |
| 85 05 13 | WML    | 0.103                                      | 0.310                     | 0.001                     |               |               |               |              | 20.2                        | 722.5                            |                                    |
| 85 05 13 | EP     | 0.011                                      | 0.126                     | < 0.005                   | 0.30          | < 0.002       | < 0.002       | 0.017        | 19.00                       | 233.1                            | 3.283                              |
| 85 05 14 | EP     | 0.01                                       | 0.101                     | < 0.005                   | 0.002         | < 0.002       | < 0.002       | 0.024        | 21.300                      | 213.5                            | 3.681                              |
| 85 05 15 | EP     | 0.009                                      | 0.097                     | < 0.005                   | 0.28          | 0.005         | 0.004         | 0.027        | 22.900                      | 219.6                            | 9.893                              |
| 85 05 16 | EP     | 0.013                                      | 0.084                     | < 0.005                   | 0.3           | 0.007         | 0.007         | 0.072        | 35.700                      | 314.6                            | 21.59                              |
| 85 05 17 | EP     | 0.008                                      | 0.061                     | < 0.005                   | 0.24          | 0.011         | 0.009         | 0.066        | 46.800                      | 299.2                            | 44.48                              |
| 85 05 21 | WML    | 0.158                                      | 0.150                     | 0.002                     |               |               |               |              | 75.200                      | 2014.                            |                                    |
| 85 05 21 | EP     | 0.009                                      | 0.054                     | < 0.005                   | 0.19          | 0.017         | 0.016         | 0.020        | 74.400                      | 437.1                            | 109.3                              |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 22 | EP     | 0.008                                      | 0.05                      | < 0.005                   | 0.19          | 0.021         | 0.022         | 0.162        | 69.600                      | 378.8                            | 126.3                              |
| 85 05 22 | WMB    | 0.011                                      | 0.09                      |                           | 0.321         | 0.024         | 0.020         | 0.136        | 70.100                      | 611.7                            | 145.4                              |
| 85 05 23 | EP     | 0.007                                      | 0.048                     | < 0.005                   | 0.17          | 0.015         | 0.023         | 0.026        | 72.300                      | 374.8                            | 93.7                               |
| 85 05 24 | EP     | 0.006                                      | 0.045                     | < 0.005                   | 0.17          | 0.019         | 0.012         | 0.154        | 74.700                      | 361.4                            | 122.6                              |
| 85 05 27 | WML    | 0.142                                      | 0.255                     | 0.004                     |               |               |               |              | 45.400                      | 1572.9                           |                                    |
| 85 05 27 | EP     | 0.009                                      | 0.104                     | < 0.005                   | 0.22          | 0.015         | 0.01          | 0.022        | 45.400                      | 462.9                            | 58.84                              |
| 85 05 27 | EP     | < 0.005                                    | 0.081                     | < 0.005                   | 0.21          | 0.019         |               | 0.019        | 45.400                      | 357.0                            | 74.5                               |
| 85 05 28 | EP     | 0.008                                      | 0.118                     | < 0.005                   | 0.29          | 0.013         | 0.008         | 0.023        | 41.000                      | 464.1                            | 46.05                              |
| 85 05 29 | EP     | 0.01                                       | 0.117                     | < 0.005                   | 0.2           | 0.014         | 0.01          | 0.018        | 36.700                      | 418.6                            | 44.39                              |
| 85 05 30 | EP     | 0.006                                      | 0.02                      | < 0.005                   | 0.1           | 0.023         | 0.02          | 0.026        | 36.900                      | 98.83                            | 73.33                              |
| 85 06 03 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 85 06 03 | EP     | 0.016                                      | 0.127                     | < 0.005                   | 0.2           |               |               |              | 25.800                      | 329.9                            |                                    |
| 85 06 04 | EP     | 0.012                                      | 0.155                     | < 0.005                   | 0.22          | 0.009         | 0.008         | 0.023        | 24.700                      | 367.1                            | 19.21                              |
| 85 06 05 | EP     | 0.013                                      | 0.145                     | < 0.005                   | 0.21          | 0.008         | 0.008         | 0.018        | 23.700                      | 333.8                            | 16.38                              |
| 85 06 06 | EP     | 0.012                                      | 0.132                     | < 0.005                   | 0.21          | 0.008         | 0.009         | 0.019        | 24.00                       | 309                              | 16.59                              |
| 85 06 07 | EP     | 0.014                                      | 0.13                      | < 0.005                   | 0.2           | 0.009         | 0.014         | 0.019        | 49.200                      | 633.4                            | 38.26                              |
| 85 06 10 | WML    | 0.017                                      | 0.450                     | 0.002                     |               |               |               |              | 30.500                      | 1236.0                           |                                    |
| 85 06 10 | EP     | 0.014                                      | 0.167                     | 0.01                      | 0.26          | 0.011         | 0.007         | 0.029        | 30.500                      | 503.3                            | 28.99                              |
| 85 06 11 | EP     | 0.015                                      | 0.15                      | 0.01                      | 0.25          | < 0.002       | 0.009         | 0.039        | 27.600                      | 417.3                            | 4.769                              |
| 85 06 12 | EP     | 0.012                                      | 0.033                     | 0.008                     | 0.24          | 0.005         | 0.006         | 0.023        | 24.900                      | 114                              | 10.76                              |
| 85 06 13 | EP     | 0.014                                      | 0.19                      | 0.006                     | 0.24          | 0.004         | 0.007         | 0.021        | 24.000                      | 435.5                            | 8.294                              |
| 85 06 14 | EP     | 0.016                                      | 0.189                     | 0.006                     | 0.25          | < 0.002       | 0.006         | 0.017        | 23.700                      | 432.1                            | 4.095                              |
| 85 06 17 | WML    | 0.039                                      | 0.275                     | 0.005                     |               | 0.018         |               |              | 18.400                      | 507                              | 28.6                               |
| 85 06 17 | EP     | 0.006                                      | 0.031                     | < 0.005                   | 0.06          | 0.009         | 0.009         | 0.024        | 18.400                      | 66.77                            | 14.31                              |
| 85 06 18 | EP     | 0.016                                      | 0.024                     | 0.007                     | 0.25          | 0.006         | 0.004         | 0.016        | 16.700                      | 67.82                            | 8.657                              |
| 85 06 18 | EP     | 0.015                                      | 0.215                     | 0.006                     | 0.30          | 0.008         |               | 0.01         | 16.700                      | 340.5                            | 11.54                              |
| 85 06 19 | EP     | 0.016                                      | 0.24                      | 0.009                     | 0.35          | 0.003         | 0.003         | 0.013        | 15.500                      | 354.9                            | 4.018                              |
| 85 06 20 | EP     | 0.013                                      | 0.19                      | 0.006                     | 0.26          | 0.006         | 0.006         | 0.017        | 15.00                       | 279.9                            | 8.035                              |
| 85 06 21 | EP     | 0.013                                      | 0.265                     | 0.009                     | 0.32          | 0.006         | 0.005         | 0.015        | 14.700                      | 364.5                            | 7.62                               |
| 85 06 24 | WML    | 0.100                                      | 0.410                     | 0.008                     |               |               |               |              | 11.300                      | 506.0                            |                                    |
| 85 06 24 | EP     | 0.011                                      | 0.232                     | 0.015                     | 0.33          | 0.005         | 0.005         | 0.012        | 11.300                      | 251.9                            | 4.882                              |
| 85 06 25 | EP     | 0.02                                       | 0.389                     | 0.011                     | 0.42          | < 0.002       | 0.003         | 0.01         | 10.000                      | 362.9                            | 1.728                              |
| 85 06 26 | EP     | 0.008                                      | 0.233                     | 0.009                     | 0.34          | < 0.002       | 0.003         | 0.005        | 9.130                       | 197.2                            | 1.578                              |
| 85 06 26 | WMB    | 0.010                                      | 0.19                      |                           | 0.28          | 0.005         | < 0.003       | 0.008        | 9.130                       | 157.8                            | 3.94                               |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 06 27 | EP     | 0.009                                      | 0.249                     | 0.01                      | 0.3           | < 0.002       | < 0.002       | 0.004        | 8.850                       | 204.9                            | 1.529                              |
| 85 06 28 | EP     | 0.011                                      | 0.219                     | 0.01                      | 0.27          | 0.004         | < 0.002       | 0.006        | 8.800                       | 182.5                            | 3.041                              |
| 85 07 02 | EP     | 0.009                                      | 0.287                     | 0.01                      | 0.32          | < 0.002       | < 0.002       | 0.003        | 7.360                       | 194.6                            | 1.272                              |
| 85 07 08 | EP     | 0.006                                      | 0.361                     | 0.007                     | 0.45          | 0.003         | < 0.002       | 0.004        | 5.310                       | 171.6                            | 1.376                              |
| 85 07 15 | WML    | ND                                         | 0.375                     | 0.004                     |               |               |               |              | 4.56                        | 149.0                            |                                    |
| 85 07 15 | EP     | 0.01                                       | 0.398                     | 0.007                     | 0.51          | 0.004         | < 0.002       | 0.010        | 4.560                       | 163.5                            | 1.576                              |
| 85 07 22 | EP     | 0.007                                      | 0.460                     | 0.008                     | 0.57          | 0.006         | < 0.002       | 0.006        | 3.700                       | 151.8                            | 1.918                              |
| 85 07 30 | EP     | 0.017                                      | 0.703                     | 0.01                      | 0.80          | < 0.002       | < 0.002       | < 0.002      | 3.120                       | 196.8                            | 0.539                              |
| 85 07 30 | WMB    | 0.016                                      | 0.33                      |                           | 0.556         | 0.003         | 0.001         | 0.005        | 3.120                       | 93.3                             | 0.81                               |
| 85 08 07 | EP     | 0.024                                      | 0.69                      | 0.007                     | 0.98          | < 0.002       | < 0.002       | < 0.002      | 2.930                       | 182.5                            | 0.506                              |
| 85 08 12 | WML    | 0.089                                      | 0.765                     | 0.007                     |               | 0.053         |               |              | 3.990                       | 296.8                            | 18.3                               |
| 85 08 12 | EP     | 0.026                                      | 0.8                       | 0.03                      | 1.2           | < 0.002       | < 0.002       | 0.01         | 3.990                       | 295.1                            | 0.689                              |
| 85 08 19 | EP     | 0.039                                      | 0.6                       | 0.04                      | 0.85          | < 0.002       | < 0.002       | 0.004        | 4.190                       | 245.8                            | 0.724                              |
| 85 08 27 | EP     | 0.055                                      | 0.6                       | 0.03                      | 0.88          | 0.010         | 0.005         | 0.030        | 2.980                       | 176.4                            | 2.575                              |
| 85 09 03 | EP     | 0.036                                      | 0.46                      | < 0.005                   | 0.95          | < 0.002       | < 0.002       | < 0.002      | 2.640                       | 114.3                            | 0.456                              |
| 85 09 04 | WMB    | 0.041                                      | 0.46                      |                           | 0.561         | 0.005         | 0.001         | 0.008        | 2.81                        | 121.6                            | 1.21                               |
| 85 09 10 | EP     | 0.031                                      | 0.35                      | < 0.005                   | 0.69          | < 0.002       | < 0.002       | < 0.002      | 3.900                       | 130.1                            | 0.674                              |
| 85 09 16 | WML    | 0.090                                      | 0.470                     | < 0.005                   |               |               |               |              | 6.07                        | 296.3                            |                                    |
| 85 09 16 | EP     | 0.018                                      | 0.35                      | 0.007                     | 0.50          | < 0.002       | < 0.002       | 0.003        | 6.070                       | 196.7                            | 1.049                              |
| 85 09 16 | EP     | 0.017                                      | 0.44                      | < 0.005                   | 0.52          | < 0.002       | < 0.002       | 0.004        | 6.070                       | 237.1                            | 1.049                              |
| 85 09 19 | WMB    | 0.016                                      | 0.25                      |                           | 0.316         | 0.005         | < 0.002       | 0.010        | 6.04                        | 138.8                            | 2.61                               |
| 85 09 23 | EP     | 0.028                                      | 0.37                      | 0.006                     | 0.53          | < 0.002       | < 0.002       | < 0.002      | 5.640                       | 196.9                            | 0.975                              |
| 85 09 30 | EP     | 0.027                                      | 0.292                     | < 0.005                   | 0.46          | < 0.002       | < 0.002       | < 0.002      | 4.510                       | 126.3                            | 0.779                              |
| 85 10 08 | EP     | 0.026                                      | 0.325                     | < 0.005                   | 0.50          | < 0.002       | < 0.002       | < 0.002      | 3.820                       | 117.5                            | 0.66                               |
| 85 10 15 | EP     | 0.028                                      | 0.354                     | < 0.005                   | 0.59          | < 0.002       | < 0.002       | < 0.002      | 3.790                       | 126.7                            | 0.655                              |
| 85 10 21 | WML    | 0.027                                      | 0.190                     | ND                        |               | 0.067         |               |              | 6.07                        | 113.8                            | 35.1                               |
| 85 10 21 | EP     | 0.012                                      | 0.158                     | < 0.005                   | 0.25          | < 0.002       | < 0.002       | < 0.002      | 6.070                       | 91.78                            | 1.049                              |
| 85 10 29 | EP     | 0.019                                      | 0.386                     | < 0.005                   | 0.52          | < 0.002       | 0.004         | 0.01         | 10.900                      | 386.1                            | 1.884                              |
| 85 11 05 | EP     | 0.016                                      | 0.358                     | < 0.005                   | 0.48          | < 0.002       | 0.004         | 0.01         | 11.400                      | 373.3                            | 1.97                               |
| 85 11 05 | WMB    | 0.014                                      | 0.24                      |                           | 0.364         | 0.010         | 0.007         | 0.017        | 11.40                       | 250.2                            | 9.85                               |
| 85 11 13 | EP     | 0.02                                       | 0.274                     | < 0.005                   | 0.38          | < 0.002       | < 0.002       | 0.003        | 3.980                       | 102.8                            | 0.688                              |
| 85 11 18 | EP     | 0.034                                      | 0.378                     | < 0.005                   | 0.51          | < 0.002       | < 0.002       | 0.003        | 3.840                       | 138.4                            | 0.664                              |
| 85 11 27 | WML    | 0.083                                      | 0.225                     | 0.006                     |               | 0.005         |               |              | 2.950                       | 80.0                             | 1.27                               |
| 85 11 27 | EP     | 0.038                                      | 0.389                     | 0.005                     | 0.56          | 0.004         | 0.002         | 0.007        | 2.950                       | 110.1                            | 1.02                               |

TABLE 3 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 12 03 | EP     | 0.038                                      | 0.436                     | < 0.005                   | 0.60          | 0.004         | < 0.002       | 0.01         | 3.200                       | 132.4                            | 1.106                              |
| 85 12 11 | WML    | 0.077                                      | 0.700                     | 0.005                     |               | 0.038         |               |              | 2.44                        | 164.9                            | 8.01                               |
| 85 12 11 | EP     | 0.043                                      | 0.575                     | < 0.005                   | 0.72          | 0.003         | < 0.002       | 0.009        | 2.440                       | 131.3                            | 0.632                              |
| 85 12 17 | EP     | 0.037                                      | 0.451                     | < 0.005                   | 0.620         | 0.003         | < 0.002       | 0.01         | 2.650                       | 112.9                            | 0.687                              |
| 85 12 23 | EP     | 0.042                                      | 0.557                     | < 0.005                   | 0.700         | 0.003         | < 0.002       | 0.008        | 2.100                       | 109.6                            | 0.544                              |
| 85 12 30 | EP     | 0.044                                      | 0.567                     | < 0.005                   | 0.670         | < 0.002       | < 0.002       | < 0.002      | 1.710                       | 91.01                            | 0.295                              |
| 86 01 07 | EP     | 0.039                                      | 0.556                     | < 0.005                   | 0.65          | < 0.002       | < 0.002       | < 0.002      | 1.7                         | 88.13                            | 0.294                              |
| 86 01 15 | WML    | <0.010                                     | 0.550                     | 0.006                     |               |               |               |              | 1.82                        | 89.00                            |                                    |
| 86 01 15 | EP     | 0.003                                      | 0.604                     | < 0.005                   | 0.70          | < 0.002       | < 0.002       | 0.004        | 1.82                        | 96.24                            | 0.314                              |
| 86 01 22 | EP     | 0.182                                      | 1.03                      | 0.03                      | 1.5           | 0.031         | 0.003         | 0.018        | 2.16                        | 231.79                           | 5.79                               |
| 86 01 27 | EP     | 0.032                                      | 0.539                     | < 0.005                   | 0.56          | 0.003         | < 0.002       | < 0.002      | 1.74                        | 86.59                            | 0.45                               |
| 86 02 03 | EP     | 0.023                                      | 0.515                     | < 0.005                   | 0.53          | < 0.002       | < 0.002       | < 0.002      | 1.75                        | 82.10                            | 0.302                              |
| 86 02 11 | EP     | 0.164                                      | 0.861                     | 0.006                     | 3.3           | 0.004         | < 0.002       | 0.006        | 1.52                        | 135.40                           | 0.525                              |
| 86 02 19 | WML    | 0.037                                      | 0.750                     | 0.002                     |               |               |               |              | 1.16                        | 79.08                            |                                    |
| 86 02 19 | EP     | 0.056                                      | 0.678                     | < 0.005                   | 0.67          | < 0.002       | < 0.002       | < 0.002      | 1.16                        | 74.07                            | 0.200                              |
| 86 02 26 | EP     | 0.015                                      | 0.202                     | < 0.005                   | 0.26          | 0.018         | 0.014         | 0.149        | 16.3                        | 312.65                           | 25.35                              |
| 86 03 06 | WML    | 0.020                                      | 0.675                     | 0.006                     |               |               |               |              | 7.28                        | 440.92                           |                                    |
| 86 03 06 | EP     | 0.018                                      | 0.259                     | < 0.005                   | 0.27          | < 0.002       | < 0.002       | 0.02         | 7.28                        | 177.38                           | 1.26                               |
| 86 03 13 | WML    | 0.120                                      | 0.340                     | < 0.001                   |               |               |               |              | 6.07                        | 241.77                           |                                    |
| 86 03 13 | EP     | 0.017                                      | 0.223                     | < 0.005                   | 0.29          | 0.003         | < 0.002       | 0.007        | 6.07                        | 128.49                           | 1.57                               |
| 86 03 18 | WML    | 0.050                                      | 0.390                     | 0.004                     |               |               |               |              | 5.14                        | 235.54                           |                                    |
| 86 03 18 | EP     | 0.016                                      | 0.304                     | < 0.005                   | 0.39          | < 0.002       | < 0.002       | < 0.002      | 5.14                        | 197.18                           | 0.888                              |
| 86 03 25 | WML    | <0.010                                     | 0.425                     | 0.005                     |               |               |               |              | 5.00                        | 140.4                            |                                    |
| 86 03 25 | EP     | 0.012                                      | 0.315                     | < 0.005                   | 0.34          | 0.003         | < 0.002       | 0.004        | 5.00                        | 190.08                           | 1.296                              |

ND - non-detectable

\* - (NO<sub>3</sub> + NO<sub>2</sub>)

TABLE 4

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - SIX MILE CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 01 12 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 02 01 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 03 01 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 03 09 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 03 16 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 03 23 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 03 30 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 04 06 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 04 13 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 04 20 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 04 27 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 05 04 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 05 11 | WML    |                                            |                           |                           |               |               |               |              | 0.0096                      |                                  |                                    |
| 83 05 17 | WML    | 0.087                                      | 0.167                     | 0.007                     |               |               |               |              | 0.0068                      | 0.15                             |                                    |
| 83 05 25 | WML    |                                            |                           |                           |               |               |               |              | 0.0269                      |                                  |                                    |
| 83 06 01 | WML    |                                            |                           |                           |               |               |               |              | 0.0595                      |                                  |                                    |
| 83 06 08 | WML    |                                            |                           |                           |               |               |               |              | 0.0193                      |                                  |                                    |
| 83 06 15 | WML    |                                            |                           |                           |               |               |               |              | 0.0096                      |                                  |                                    |
| 83 06 21 | WML    | 0.006                                      | 0.287                     | 0.002                     |               |               |               |              | 0.0068                      | 0.17                             |                                    |
| 83 06 29 | WML    |                                            |                           |                           |               |               |               |              | 0.0023                      |                                  |                                    |
| 83 07 12 | WML    | 0.047                                      | 0.400                     | 0.008                     |               |               |               |              | 0.0023                      | 0.09                             |                                    |
| 83 08 23 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 09 21 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 10 18 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 11 04 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 83 12 06 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 01 09 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 02 13 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 03 05 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 03 13 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 03 21 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 03 26 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 04 03 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |

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TABLE 4 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 04 09 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 04 16 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 04 24 | WML    | 0.009                                      | 0.200                     | 0.013                     |               |               |               |              | 0.0125                      | 0.24                             |                                    |
| 84 05 01 | WML    | 0.078                                      | 0.030                     | 0.002                     |               |               |               |              | 0.0045                      | 0.04                             |                                    |
| 84 05 08 | WML    | 0.050                                      | 0.380                     | 0.001                     |               |               |               |              | 0.0096                      | 0.36                             |                                    |
| 84 05 14 | WML    | 0.091                                      | 0.365                     | 0.004                     |               |               |               |              | 0.0354                      | 1.41                             |                                    |
| 84 05 23 | WML    | 0.126                                      | 0.640                     | 0.002                     |               |               |               |              | 0.0354                      | 2.35                             |                                    |
| 84 05 29 | WML    | 0.029                                      | 0.460                     | 0.003                     |               |               |               |              | 0.0397                      | 1.69                             |                                    |
| 84 06 04 | WML    | 0.012                                      | 0.260                     | 0.005                     |               |               |               |              | 0.0354                      | 0.85                             |                                    |
| 84 06 11 | WML    | 0.150                                      | 0.640                     | 0.005                     |               |               |               |              | 0.0595                      | 4.09                             |                                    |
| 84 06 18 | WML    | 0.069                                      | 0.620                     | 0.004                     |               |               |               |              | 0.0397                      | 2.38                             |                                    |
| 84 06 25 | WML    | 0.132                                      | 0.610                     | 0.010                     |               |               |               |              | 0.0309                      | 2.01                             |                                    |
| 84 07 16 | WML    | 0.211                                      | 0.285                     | 0.002                     |               |               |               |              | 0.0125                      | 0.54                             |                                    |
| 84 08 07 | WML    | 0.108                                      | 0.260                     | 0.001                     |               |               |               |              | 0.0025                      | 0.08                             |                                    |
| 84 09 24 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 10 22 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 84 11 13 | WML    | 0.090                                      | 0.085                     | 0.032                     |               |               |               |              | 0.0028                      | 0.050                            |                                    |
| 84 12 03 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 01 15 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 02 04 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 03 04 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 03 11 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 03 18 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 03 25 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 04 01 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 04 08 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 04 15 | WML    | 0.180                                      | 0.210                     | 0.011                     |               |               |               |              | 0.0813                      | 2.82                             |                                    |
| 85 04 15 | EP     | 0.011                                      | 0.091                     | < 0.005                   | 0.34          | 0.004         | 0.005         | 0.118        | 0.0813                      | 0.752                            | 0.028                              |
| 85 04 22 | WML    | 0.080                                      | 0.433                     | 0.016                     |               |               |               |              | 0.0142                      | 0.65                             |                                    |
| 85 04 22 | EP     | 0.016                                      | 0.242                     | 0.002                     | 0.24          | 0.005         | 0.004         | 0.004        | 0.0142                      | 0.323                            | 0.006                              |
| 85 04 25 | EP     | 0.011                                      | 0.199                     | < 0.005                   | 0.25          | 0.005         |               | 0.05         | 0.0232                      | 0.430                            | 0.01                               |
| 85 04 30 | WML    | 0.041                                      | 0.250                     | 0.003                     |               |               |               |              | 0.0323                      | 0.82                             |                                    |
| 85 04 30 | EP     | 0.013                                      | 0.164                     | < 0.005                   | 0.27          | 0.003         | 0.004         | 0.003        | 0.0323                      | 0.508                            | 0.008                              |
| 85 05 06 | WML    | 0.063                                      | 0.475                     | 0.003                     |               |               |               |              | 0.0445                      | 2.08                             |                                    |

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TABLE 4 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 06 | EP     | 0.007                                      | 0.231                     | < 0.005                   | 0.38          | < 0.002       | 0.005         | 0.006        | 0.0445                      | 0.934                            | 0.008                              |
| 85 05 13 | WML    | 0.092                                      | 0.465                     | 0.001                     |               |               |               |              | 0.0507                      | 2.44                             |                                    |
| 85 05 13 | EP     | < 0.005                                    | 0.347                     | 0.007                     | 0.48          | < 0.002       | < 0.002       | 0.028        | 0.0507                      | 1.573                            | 0.009                              |
| 85 05 21 | WML    | 0.008                                      | 0.435                     | 0.004                     |               |               |               |              | 0.1116                      | 4.31                             |                                    |
| 85 05 21 | EP     | < 0.005                                    | 0.412                     | 0.023                     | 0.50          | 0.005         | 0.013         | 0.143        | 0.1116                      | 4.243                            | 0.048                              |
| 85 05 27 | WML    | 0.115                                      | 0.535                     | 0.008                     |               |               |               |              | 0.0751                      | 4.27                             |                                    |
| 85 05 27 | EP     | < 0.005                                    | 0.410                     | < 0.005                   | 0.61          | 0.003         | < 0.002       | 0.018        | 0.0751                      | 2.725                            | 0.019                              |
| 85 05 28 | EP     | < 0.005                                    | 0.247                     | < 0.005                   | 0.72          | 0.016         |               | 0.032        | 0.0538                      | 1.19                             | 0.0744                             |
| 85 06 03 | WML    | 0.128                                      | 0.460                     | 0.001                     |               |               |               |              | 0.0368                      | 1.87                             |                                    |
| 85 06 03 | EP     | 0.008                                      | 0.260                     | 0.3                       | 0.55          | 0.003         | 0.005         | 0.042        | 0.0368                      | 1.806                            | 0.01                               |
| 85 06 10 | WML    | 0.024                                      | 0.340                     | 0.003                     |               |               |               |              | 0.0368                      | 1.17                             |                                    |
| 85 06 10 | EP     | 0.018                                      | 0.240                     | 0.021                     | 0.51          | 0.008         | 0.032         | 0.14         | 0.0368                      | 0.887                            | 0.025                              |
| 85 06 17 | WML    | 0.250                                      | 0.165                     | 0.008                     |               |               |               |              | 0.0334                      | 1.22                             |                                    |
| 85 06 17 | EP     | 0.008                                      | 0.180                     | 0.007                     | 0.19          | < 0.002       | < 0.002       | 0.007        | 0.036                       | 0.607                            | 0.006                              |
| 85 06 17 | EP     | < 0.005                                    | 0.119                     | 0.007                     | 0.19          | < 0.002       |               | < 0.002      | 0.036                       | 0.400                            | 0.006                              |
| 85 06 24 | WML    | 0.180                                      | 0.185                     | 0.004                     |               |               |               |              | 0.0292                      | 0.93                             |                                    |
| 85 06 24 | EP     | < 0.005                                    | 0.052                     | 0.007                     | 0.29          | < 0.002       | < 0.002       | 0.013        | 0.0292                      | 0.161                            | 0.005                              |
| 85 07 15 | WML    | ND                                         | ND                        | ND                        |               |               |               |              | 0.0186                      |                                  |                                    |
| 85 07 15 | EP     | < 0.005                                    | 0.005                     | < 0.005                   | 0.05          | 0.006         | < 0.002       | 0.007        | 0.0187                      | 0.024                            | 0.01                               |
| 85 08 12 | EP     | 0.009                                      | 0.005                     | < 0.005                   | 0.08          | < 0.002       | < 0.002       | 0.013        | 0.0229                      | 0.038                            | 0.004                              |
| 85 09 16 | WML    | 0.170                                      | 0.140                     | 0.001                     |               |               |               |              | 0.0190                      | 0.51                             |                                    |
| 85 09 16 | EP     | 0.012                                      | 0.070                     | < 0.005                   | 0.09          | < 0.002       | 0.007         | 0.076        | 0.0176                      | 0.132                            | 0.003                              |
| 85 09 16 | EP     | < 0.005                                    | 0.048                     | < 0.005                   | 0.190         | 0.015         |               | 0.085        | 0.0176                      | 0.090                            | 0.023                              |
| 85 10 21 | WML    | 0.007                                      | 0.095                     | 0.018                     |               |               |               |              | 0.0142                      | 0.15                             |                                    |
| 85 10 21 | EP     | < 0.005                                    | 0.160                     | < 0.005                   | 0.19          | < 0.002       | 0.004         | 0.036        | 0.0142                      | 0.209                            | 0.002                              |
| 85 11 26 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 85 12 11 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 86 01 16 | WML    |                                            |                           |                           |               |               |               |              | NO OVERFLOW                 |                                  |                                    |
| 86 03 06 | WML    | <0.010                                     | 0.800                     | 0.006                     |               |               |               |              | 0.0943                      | 6.7                              |                                    |
| 86 03 13 | WML    | 0.018                                      | 0.320                     | 0.008                     |               |               |               |              | 0.0943                      | 2.8                              |                                    |
| 86 03 18 | WML    | 0.103                                      | 0.270                     | 0.008                     |               |               |               |              | 0.0142                      | 0.47                             |                                    |
| 86 03 18 | EP     | 0.006                                      | 0.153                     | < 0.005                   | 3.4           | 0.006         | < 0.002       | 0.031        | 0.0142                      | 0.20                             | 0.007                              |
| 86 03 25 | WML    | <0.010                                     | 0.400                     | 0.006                     |               |               |               |              | 0.0142                      | 0.51                             |                                    |

TABLE 5

NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - MICHEL CREEK UPSTREAM OF OPERATIONS

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 09 01 | WML    | ND                                         | 0.006                     | ND                        |               |               |               |              | 2.97                        | 1.5                              |                                    |
| 82 09 07 | WML    | 0.045                                      | ND                        | 0.008                     |               |               |               |              | 3.34                        | 15.3                             |                                    |
| 82 11 09 | WML    | 0.294                                      | 0.100                     | ND                        |               |               |               |              | 2.80                        | 95.3                             |                                    |
| 82 11 23 | WML    | ND                                         | 0.020                     | 0.002                     |               |               |               |              | 2.25                        | 4.3                              |                                    |
| 82 12 21 | WML    | ND                                         | 0.010                     | ND                        |               |               |               |              | 2.14                        | 1.85                             |                                    |
| 83 01 18 | WML    | 0.600                                      | 0.080                     | 0.013                     |               |               |               |              | 2.278                       | 136.4                            |                                    |
| 83 02 01 | WML    | 0.241                                      | 0.160                     | 0.001                     |               |               |               |              | 1.91                        | 66.3                             |                                    |
| 83 03 22 | WML    | ND                                         | ND                        | 0.002                     |               |               |               |              | 2.33                        | 0.40                             |                                    |
| 83 04 18 | WML    | 0.096                                      | 0.173                     | 0.001                     |               |               |               |              | 5.51                        | 128.5                            |                                    |
| 83 05 16 | WML    | 0.072                                      | ND                        | 0.002                     |               |               |               |              | 24.2                        | 154.7                            |                                    |
| 83 06 20 | WML    | 0.031                                      | 0.267                     | 0.003                     |               |               |               |              | 13.7                        | 356.3                            |                                    |
| 83 07 12 | WML    | 0.123                                      | 0.267                     | 0.004                     |               |               |               |              | 10.1                        | 343.8                            |                                    |
| 83 08 23 | WML    | ND                                         | 0.080                     | 0.001                     |               |               |               |              | 3.46                        | 24.2                             |                                    |
| 83 09 14 | WML    | 0.004                                      | ND                        | ND                        |               |               |               |              | 2.66                        | 0.92                             |                                    |
| 83 10 12 | WML    | ND                                         | 0.073                     | 0.001                     |               |               |               |              | 2.66                        | 17.0                             |                                    |
| 83 12 05 | WML    | 0.108                                      | 0.125                     | 0.006                     |               |               |               |              | 1.95                        | 40.3                             |                                    |
| 84 01 09 | WML    | 0.031                                      | 0.019                     | 0.034                     |               | 0.005         |               |              | 1.56                        | 11.3                             | 0.67                               |
| 84 02 13 | WML    | 0.036                                      | 0.467                     | 0.001                     |               | 0.039         |               |              | 1.03                        | 44.9                             | 3.47                               |
| 84 03 05 | WML    | 0.014                                      | 0.147                     |                           |               |               |               |              | 1.72                        | 23.9                             |                                    |
| 84 03 05 | WML    | 0.014                                      | 0.147                     |                           |               | ND            |               |              | 2.72                        | 23.9                             |                                    |
| 84 03 13 | WML    | 0.019                                      | 0.560                     | ND                        |               | 0.008         |               |              | 2.23                        | 111.6                            | 1.5                                |
| 84 03 13 | WML    | 0.019                                      | 0.127                     | ND                        |               |               |               |              | 2.23                        | 28.1                             |                                    |
| 84 03 21 | WML    |                                            | 0.035                     |                           |               |               |               |              | 2.55                        | 7.7                              |                                    |
| 84 03 21 | WML    |                                            | 0.035                     |                           |               |               |               |              | 2.55                        | 7.7                              |                                    |
| 84 03 26 | WML    |                                            | 0.140                     |                           |               |               |               |              | 2.15                        | 26.0                             |                                    |
| 84 03 26 | WML    |                                            | 0.140                     |                           |               |               |               |              | 2.15                        | 26.0                             |                                    |
| 84 04 02 | WML    | 0.013                                      | 0.260                     | ND                        |               |               |               |              | 2.05                        | 48.4                             |                                    |
| 84 04 03 | WML    | 0.070                                      | 0.340                     | 0.002                     |               |               |               |              | 2.03                        | 60.4                             |                                    |
| 84 04 09 | WML    | 0.075                                      | 0.113                     | 0.010                     |               |               |               |              | 2.79                        | 47.7                             |                                    |
| 84 04 09 | WML    | 0.075                                      | 0.113                     | 0.010                     |               |               |               |              | 2.79                        | 47.7                             |                                    |
| 84 04 16 | WML    | 0.059                                      | 0.260                     | 0.007                     |               |               |               |              | 6.92                        | 194.3                            |                                    |
| 84 04 16 | WML    | 0.059                                      | 0.260                     | 0.007                     |               |               |               |              | 6.92                        | 194.9                            |                                    |
| 84 04 23 | WML    | 0.102                                      | 0.100                     | 0.020                     |               | 0.002         |               |              | 13.1                        | 251.3                            | 1.47                               |
| 84 04 24 | WML    | 0.103                                      | 0.160                     | 0.023                     |               | 0.002         |               |              | 8.48                        | 209.5                            | 1.47                               |

TABLE 5 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 05 01 | WML    | 0.146                                      | 0.215                     | 0.001                     |               |               |               |              | 6.14                        | 192.0                            |                                    |
| 84 05 01 | WML    | 0.146                                      | 0.215                     | 0.001                     |               |               |               |              | 6.14                        | 192.0                            |                                    |
| 84 05 08 | WML    | ND                                         | 0.120                     | 0.001                     |               |               |               |              | 8.52                        | 89.1                             |                                    |
| 84 05 08 | WML    | 0.024                                      | 0.060                     | ND                        |               |               |               |              | 8.52                        | 61.8                             |                                    |
| 84 05 14 | WML    | 0.035                                      | 0.140                     | 0.001                     |               |               |               |              | 14.7                        | 223.5                            |                                    |
| 84 05 22 | WML    | 0.046                                      | 0.140                     | 0.001                     |               |               |               |              | 28.8                        | 465.3                            |                                    |
| 84 05 23 | WML    | ND                                         | 0.230                     | 0.002                     |               |               |               |              | 29.3                        | 587                              |                                    |
| 84 05 28 | WML    | ND                                         | 0.210                     | ND                        |               |               |               |              | 25.8                        | 468                              |                                    |
| 84 05 29 | WML    | ND                                         | 0.240                     | 0.002                     |               |               |               |              | 25.8                        | 539                              |                                    |
| 84 06 04 | WML    | ND                                         | 0.040                     | 0.002                     |               |               |               |              | 33.2                        | 120.5                            |                                    |
| 84 06 04 | WML    | ND                                         | 0.040                     | 0.002                     |               |               |               |              | 33.2                        | 120.5                            |                                    |
| 84 06 11 | WML    | 0.107                                      | 0.135                     | 0.005                     |               |               |               |              | 35.5                        | 757.6                            |                                    |
| 84 06 11 | WML    | 0.107                                      | 0.135                     | 0.005                     |               |               |               |              | 35.5                        | 757.6                            |                                    |
| 84 06 18 | WML    | 0.097                                      | 0.230                     | 0.002                     |               |               |               |              | 38.7                        | 1100.0                           |                                    |
| 84 06 18 | WML    | 0.097                                      | 0.230                     | 0.002                     |               |               |               |              | 38.7                        | 1100.0                           |                                    |
| 84 06 25 | WML    | 0.159                                      | 0.335                     | 0.006                     |               |               |               |              | 28.5                        | 1231                             |                                    |
| 84 07 04 | WML    | 0.181                                      | 0.095                     | ND                        |               |               |               |              | 13.1                        | 312.4                            |                                    |
| 84 07 09 | WML    | 0.130                                      | 0.100                     | ND                        |               |               |               |              | 9.65                        | 191.8                            |                                    |
| 84 07 16 | WML    | 0.052                                      | 0.165                     | 0.004                     |               |               |               |              | 6.34                        | 121.1                            |                                    |
| 84 07 16 | WML    | 0.052                                      | 0.165                     | 0.004                     |               |               |               |              | 6.34                        | 121.1                            |                                    |
| 84 07 30 | WML    | 0.068                                      | ND                        | 0.008                     |               |               |               |              | 4.88                        | 32.0                             |                                    |
| 84 08 07 | WML    | 0.081                                      | 0.015                     | 0.011                     |               |               |               |              | 4.28                        | 39.6                             |                                    |
| 84 08 27 | WML    | 0.068                                      | 0.085                     | 0.015                     |               | 0.042         |               |              | 2.19                        | 31.8                             | 7.95                               |
| 84 09 24 | WML    | 0.036                                      | 0.100                     | 0.004                     |               |               |               |              | 3.17                        | 38.3                             |                                    |
| 84 10 01 | WML    | 0.060                                      | ND                        | 0.002                     |               |               |               |              | 2.79                        | 14.9                             |                                    |
| 84 10 22 | WML    | 0.160                                      | 0.020                     | 0.002                     |               | 0.048         |               |              | 2.30                        | 36.2                             | 9.5                                |
| 84 11 13 | WML    | 0.116                                      | ND                        | 0.040                     |               | 0.017         |               |              | 1.69                        | 22.7                             | 2.5                                |
| 84 12 03 | WML    | 0.201                                      | 0.035                     | 0.012                     |               | 0.004         |               |              | 1.36                        | 29.1                             | 0.47                               |
| 85 01 15 | WML    | 0.015                                      | 0.100                     | 0.002                     |               | ND            |               |              | 1.66                        | 16.8                             |                                    |
| 85 02 04 | WML    | 0.060                                      | 0.090                     | 0.001                     |               | 0.012         |               |              | 1.15                        | 15.0                             | 1.2                                |
| 85 03 05 | WML    | 0.198                                      | ND                        | 0.014                     |               |               |               |              | 1.36                        | 24.9                             |                                    |
| 85 03 11 | WML    | ND                                         | 0.060                     | 0.001                     |               |               |               |              | 1.36                        | 7.2                              |                                    |
| 85 03 18 | WML    | ND                                         | 0.050                     | 0.007                     |               |               |               |              | 2.02                        | 9.95                             |                                    |
| 85 03 25 | WML    | 0.020                                      | 0.160                     | ND                        |               |               |               |              | 2.05                        | 31.9                             |                                    |

TABLE 5 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 04 01 | WML    | 0.006                                      | 0.290                     | 0.001                     |               |               |               |              | 1.720                       | 44.1                             |                                    |
| 85 04 01 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.05          | < 0.002       | < 0.002       | 0.008        | 1.720                       | 2.229                            | 0.297                              |
| 85 04 02 | EP     | 0.035                                      | 0.012                     | < 0.005                   | 0.11          | 0.004         | 0.003         | 0.018        | 2.260                       | 10.15                            | 0.781                              |
| 85 04 03 | EP     | 0.088                                      | 0.019                     | < 0.005                   | 0.17          | 0.018         | 0.011         | 0.057        | 3.150                       | 30.48                            | 4.899                              |
| 85 04 04 | EP     | 0.032                                      | 0.024                     | < 0.005                   | 0.11          | 0.042         | 0.02          | 0.114        | 3.100                       | 16.34                            | 11.25                              |
| 85 04 05 | EP     | 0.012                                      | 0.008                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.011        | 2.960                       | 6.394                            | 0.511                              |
| 85 04 08 | WML    | 0.099                                      | 0.115                     | 0.002                     |               |               |               |              | 3.050                       | 56.9                             |                                    |
| 85 04 08 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.05          | < 0.002       | 0.003         | 0.013        | 3.050                       | 3.953                            | 0.527                              |
| 85 04 10 | EP     | 0.006                                      | 0.026                     | < 0.005                   | 0.11          | 0.005         | 0.003         | 0.026        | 5.470                       | 17.49                            | 2.363                              |
| 85 04 11 | EP     | 0.013                                      | 0.069                     | < 0.005                   | 0.16          | 0.01          | 0.011         | 0.058        | 8.800                       | 66.15                            | 7.603                              |
| 85 04 12 | EP     | 0.008                                      | 0.07                      | < 0.005                   | 0.14          | 0.012         | 0.007         | 0.399        | 10.400                      | 74.58                            | 10.78                              |
| 85 04 15 | WML    | 0.209                                      | 0.300                     | 0.003                     |               | 0.046         |               |              | 19.500                      | 862.6                            | 77.5                               |
| 85 04 15 | EP     | 0.018                                      | 0.069                     | < 0.005                   | 0.21          | 0.015         | 0.008         | 0.066        | 19.500                      | 155                              | 25.27                              |
| 85 04 16 | EP     | 0.018                                      | 0.036                     | < 0.005                   | 0.14          | 0.01          | 0.007         | 0.036        | 14.300                      | 72.9                             | 12.36                              |
| 85 04 17 | EP     | 0.011                                      | 0.028                     | < 0.005                   | 0.12          | 0.007         | 0.006         | 0.03         | 13.900                      | 52.84                            | 8.407                              |
| 85 04 18 | EP     | 0.01                                       | 0.048                     | < 0.005                   | 0.15          | 0.007         | 0.007         | 0.027        | 11.800                      | 64.23                            | 7.137                              |
| 85 04 19 | EP     | 0.019                                      | 0.036                     | < 0.005                   | 0.13          | 0.006         | 0.005         | 0.021        | 10.200                      | 52.88                            | 5.288                              |
| 85 04 22 | WML    | 0.052                                      | 0.257                     | 0.007                     |               |               |               |              | 7.080                       | 193.3                            |                                    |
| 85 04 22 | EP     | 0.017                                      | < 0.005                   | < 0.005                   | 0.14          | < 0.002       | < 0.002       | 0.009        | 7.080                       | 16.52                            | 1.223                              |
| 85 04 23 | EP     | 0.008                                      | < 0.005                   | < 0.005                   | 0.09          | 0.003         | < 0.002       | 0.006        | 6.800                       | 10.58                            | 1.763                              |
| 85 04 24 | EP     | 0.007                                      | < 0.005                   | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.01         | 6.170                       | 9.062                            | 1.066                              |
| 85 04 25 | EP     | 0.021                                      | < 0.005                   | < 0.005                   | 0.07          | 0.004         | < 0.002       | 0.011        | 5.770                       | 15.45                            | 1.994                              |
| 85 04 25 | EP     | 0.011                                      | 0.042                     | < 0.005                   |               | 0.006         |               | 0.009        | 5.770                       | 28.9                             | 2.99                               |
| 85 04 26 | EP     | 0.012                                      | < 0.005                   | < 0.005                   | 0.09          | < 0.002       | < 0.002       | 0.004        | 8.890                       | 16.9                             | 1.536                              |
| 85 04 29 | EP     | 0.011                                      | 0.007                     | < 0.005                   | 0.13          | 0.007         | 0.005         | 0.007        | 14.500                      | 28.81                            | 8.77                               |
| 85 04 30 | WML    | 0.102                                      | 0.165                     | 0.001                     |               |               |               |              | 15.80                       | 365.9                            |                                    |
| 85 04 30 | EP     | 0.01                                       | < 0.005                   | < 0.005                   | 0.13          | 0.005         | 0.005         | 0.009        | 15.800                      | 27.3                             | 6.826                              |
| 85 05 01 | EP     | 0.007                                      | < 0.005                   | < 0.005                   | 0.13          | 0.004         | 0.006         | 0.009        | 17.10                       | 25.12                            | 5.91                               |
| 85 05 02 | EP     | < 0.005                                    | 0.006                     | < 0.005                   | 0.11          | 0.007         | 0.009         | 0.014        | 24.700                      | 34.15                            | 14.94                              |
| 85 05 03 | EP     | 0.008                                      | 0.041                     | < 0.005                   | 0.17          | 0.011         | 0.013         | 0.027        | 36.100                      | 168.4                            | 34.31                              |
| 85 05 06 | WML    | 0.107                                      | 0.215                     | 0.001                     |               | 0.050         |               |              | 22.500                      | 627.9                            | 97.2                               |
| 85 05 06 | EP     | < 0.005                                    | 0.009                     | < 0.005                   | 0.10          | 0.007         | 0.007         | 0.015        | 21.20                       | 34.8                             | 12.84                              |
| 85 05 07 | EP     | 0.005                                      | 0.013                     | 0.005                     | 0.11          | 0.004         | 0.006         | 0.015        | 21.8                        | 43.32                            | 7.534                              |

TABLE 5 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 08 | EP     | < 0.005                                    | 0.007                     | < 0.005                   | 1.6           | 0.008         | 0.007         | 0.02         | 23.200                      | 34.08                            | 16.04                              |
| 85 05 09 | EP     | 0.007                                      | 0.005                     | < 0.005                   | 0.1           | 0.006         | < 0.002       | 0.023        | 25.200                      | 37.01                            | 13.06                              |
| 85 05 10 | EP     | < 0.005                                    | 0.011                     | < 0.005                   | 0.13          | 0.008         | 0.005         | 0.035        | 26.300                      | 47.72                            | 18.18                              |
| 85 05 13 | WML    | 0.097                                      | 0.210                     | ND                        |               |               |               |              | 20.2                        | 535.8                            |                                    |
| 85 05 13 | EP     | < 0.005                                    | 0.094                     | < 0.005                   | 0.098         | 0.008         | 0.006         | 0.034        | 19.000                      | 170.7                            | 13.13                              |
| 85 05 14 | EP     | < 0.005                                    | 0.104                     | < 0.005                   | 0.2           | 0.008         | 0.006         | 0.029        | 21.300                      | 209.8                            | 14.72                              |
| 85 05 15 | EP     | < 0.005                                    | 0.008                     | < 0.005                   | 0.08          | 0.009         | 0.006         | 0.03         | 22.900                      | 35.61                            | 17.81                              |
| 85 05 16 | EP     | 0.006                                      | < 0.005                   | < 0.005                   | 0.09          | 0.012         | 0.012         | 0.065        | 35.700                      | 49.35                            | 37.01                              |
| 85 05 17 | EP     | < 0.005                                    | 0.011                     | < 0.005                   | 0.11          | 0.019         | 0.014         | 0.107        | 46.800                      | 84.91                            | 76.83                              |
| 85 05 21 | WML    | 0.231                                      | 0.085                     | ND                        |               | 0.012         |               |              | 75.200                      | 205.3                            | 19.1                               |
| 85 04 21 | EP     | 0.018                                      | 0.014                     | < 0.005                   | 0.24          | 0.013         | 0.02          | 0.048        | 74.400                      | 237.8                            | 83.57                              |
| 85 05 22 | EP     | 0.006                                      | 0.013                     | < 0.005                   | 0.14          | 0.027         | 0.024         | 0.159        | 69.600                      | 144.3                            | 162.4                              |
| 85 05 23 | EP     | < 0.005                                    | 0.013                     | < 0.005                   | 0.11          | 0.031         | 0.024         | 0.161        | 72.300                      | 143.7                            | 193.6                              |
| 85 05 24 | EP     | < 0.005                                    | 0.014                     | < 0.005                   | 0.09          | 0.022         | 0.017         | 0.071        | 74.700                      | 154.9                            | 142.0                              |
| 85 05 27 | WML    | 0.398                                      | 0.110                     | 0.004                     |               |               |               |              | 45.400                      | 2008                             |                                    |
| 85 05 27 | EP     | 0.007                                      | 0.016                     | < 0.005                   | 0.13          | 0.049         | 0.024         | 0.065        | 45.400                      | 109.8                            | 192.2                              |
| 85 05 27 | EP     | < 0.005                                    | 0.063                     | < 0.005                   | 0.14          | 0.023         |               | 0.026        | 45.40                       | 286.3                            | 90.2                               |
| 85 05 28 | EP     | < 0.005                                    | 0.016                     | < 0.005                   | 0.09          | 0.022         | 0.013         | 0.02         | 41.000                      | 92.1                             | 77.93                              |
| 85 05 29 | EP     | < 0.005                                    | 0.015                     | < 0.005                   | 0.096         | 0.027         | 0.014         | 0.027        | 36.700                      | 79.27                            | 85.61                              |
| 85 05 30 | EP     | 0.006                                      | 0.02                      | < 0.005                   | 0.1           | 0.023         | 0.02          | 0.026        | 36.900                      | 98.83                            | 73.33                              |
| 85 06 03 | WML    | 0.0230                                     | 0.230                     | 0.001                     |               |               |               |              | 25.800                      | 566.2                            |                                    |
| 85 06 03 | EP     | 0.014                                      | 0.011                     | < 0.005                   | 0.08          | 0.011         | 0.012         | 0.35         | 25.800                      | 66.87                            | 24.52                              |
| 85 06 04 | EP     | 0.006                                      | 0.009                     | < 0.005                   | 0.089         | 0.02          | 0.012         | 0.032        | 24.700                      | 42.68                            | 42.68                              |
| 85 06 05 | EP     | 0.008                                      | 0.011                     | < 0.005                   | 0.01          | 0.014         | 0.012         | 0.024        | 23.700                      | 49.14                            | 28.67                              |
| 85 06 06 | EP     | 0.014                                      | 0.012                     | < 0.005                   | 0.093         | 0.015         | 0.013         | 0.029        | 24.000                      | 64.28                            | 31.1                               |
| 85 06 07 | EP     | 0.017                                      | 0.012                     | < 0.005                   | 0.095         | 0.017         | 0.021         | 0.048        | 49.200                      | 144.5                            | 72.26                              |
| 85 06 10 | WML    | 0.088                                      | 0.300                     | 0.001                     |               |               |               |              | 30.500                      | 1025.1                           |                                    |
| 85 06 10 | EP     | 0.016                                      | 0.089                     | 0.024                     | 0.12          | 0.011         | 0.016         | 0.050        | 27.600                      | 307.6                            | 26.23                              |
| 85 06 11 | EP     | 0.009                                      | 0.009                     | < 0.005                   | 0.1           | 0.015         | 0.013         | 0.033        | 30.500                      | 60.61                            | 39.53                              |
| 85 06 12 | EP     | 0.008                                      | 0.041                     | < 0.005                   | 0.09          | 0.014         | 0.014         | 0.033        | 24.900                      | 116.2                            | 30.12                              |
| 85 06 13 | EP     | 0.013                                      | 0.053                     | 0.006                     | 0.08          | 0.011         | 0.013         | 0.029        | 24.000                      | 149.3                            | 22.81                              |
| 85 06 14 | EP     | 0.014                                      | 0.007                     | 0.006                     | 0.06          | 0.009         | 0.01          | 0.026        | 23.700                      | 55.29                            | 18.43                              |
| 85 06 17 | WML    | 0.062                                      | 0.175                     | 0.008                     |               |               |               |              | 18.400                      | 389.5                            |                                    |
| 85 06 17 | EP     | 0.011                                      | 0.016                     | 0.005                     | 0.08          | 0.018         | 0.008         | 0.023        | 16.70                       | 46.17                            | 25.97                              |

TABLE 5 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 06 18 | EP     | 0.017                                      | 0.22                      | 0.007                     | 0.3           | 0.004         | 0.004         | 0.014        | 18.400                      | 387.9                            | 6.359                              |
| 85 06 18 | EP     | 0.013                                      | 0.015                     | < 0.005                   | 0.09          | 0.016         |               | 0.017        | 18.400                      | 52.5                             | 25.4                               |
| 85 06 19 | EP     | 0.008                                      | < 0.005                   | < 0.005                   | 0.06          | 0.009         | 0.007         | 0.023        | 15.500                      | 24.11                            | 12.05                              |
| 85 06 20 | EP     | 0.01                                       | 0.064                     | < 0.005                   | 0.07          | 0.009         | 0.009         | 0.017        | 15.500                      | 105.8                            | 12.05                              |
| 85 06 21 | EP     | 0.006                                      | 0.009                     | < 0.005                   | 0.06          | 0.008         | 0.008         | 0.018        | 14.700                      | 25.4                             | 10.16                              |
| 85 06 24 | WML    | 0.090                                      | 0.115                     | 0.004                     |               |               |               |              | 11.300                      | 204.0                            |                                    |
| 85 06 24 | EP     | 0.009                                      | 0.043                     | < 0.005                   | 0.11          | 0.008         | 0.008         | 0.01         | 11.300                      | 55.65                            | 7.811                              |
| 85 06 25 | EP     | 0.013                                      | 0.018                     | 0.006                     | 0.06          | 0.012         | 0.011         | 0.026        | 10.000                      | 31.97                            | 10.37                              |
| 85 06 26 | EP     | 0.005                                      | 0.011                     | < 0.005                   | 0.1           | 0.1           | 0.007         | 0.013        | 9.130                       | 16.57                            | 78.88                              |
| 85 06 27 | EP     | 0.011                                      | 0.021                     | < 0.005                   | 0.05          | 0.05          | 0.006         | 0.011        | 8.850                       | 28.29                            | 38.23                              |
| 85 06 28 | EP     | 0.008                                      | < 0.005                   | < 0.005                   | 0.04          | 0.04          | 0.006         | 0.05         | 8.800                       | 13.69                            | 30.41                              |
| 85 07 02 | EP     | 0.011                                      | 0.023                     | 0.006                     | 0.06          | 0.06          | 0.004         | 0.009        | 7.360                       | 25.44                            | 38.15                              |
| 85 07 08 | EP     | 0.009                                      | < 0.005                   | < 0.005                   | 0.04          | 0.004         | < 0.002       | 0.008        | 5.310                       | 8.717                            | 1.835                              |
| 85 07 15 | WML    | 0.036                                      | 0.115                     | 0.006                     |               |               |               |              | 4.560                       | 61.9                             |                                    |
| 85 07 15 | EP     | 0.01                                       | < 0.005                   | < 0.005                   | 0.04          | 0.01          | < 0.002       | 0.010        | 4.560                       | 7.88                             | 3.94                               |
| 85 07 22 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.04          | 0.013         | < 0.002       | 0.013        | 3.70                        | 4.795                            | 4.156                              |
| 85 07 30 | EP     | 0.016                                      | 0.029                     | < 0.005                   | 0.05          | 0.01          | < 0.002       | 0.010        | 3.120                       | 13.48                            | 2.696                              |
| 85 08 07 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.06          | 0.002         | < 0.002       | < 0.002      | 2.930                       | 3.797                            | 0.506                              |
| 85 08 12 | WML    | 0.080                                      | 0.240                     | 0.003                     |               | 0.018         |               |              | 3.990                       | 165.5                            | 6.2                                |
| 85 08 12 | EP     | 0.006                                      | 0.055                     | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.022        | 3.990                       | 22.75                            | 0.689                              |
| 85 08 19 | EP     | < 0.005                                    | 0.03                      | < 0.005                   | 0.06          | < 0.002       | < 0.002       | 0.003        | 4.190                       | 14.48                            | 0.724                              |
| 85 08 27 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.06          | < 0.002       | < 0.002       | < 0.002      | 2.980                       | 3.862                            | 0.515                              |
| 85 09 03 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.04          | < 0.002       | < 0.002       | 0.003        | 2.640                       | 3.421                            | 0.456                              |
| 85 09 10 | EP     | < 0.005                                    | 0.041                     | < 0.005                   | 0.05          | 0.005         | 0.004         | 0.012        | 3.900                       | 17.18                            | 1.685                              |
| 85 09 16 | WML    | 0.060                                      | 0.110                     | 0.011                     |               |               |               |              | 6.070                       | 94.9                             |                                    |
| 85 09 16 | EP     | < 0.005                                    | 0.011                     | < 0.005                   | 0.04          | < 0.002       | < 0.002       | 0.005        | 6.070                       | 11.01                            | 1.049                              |
| 85 09 19 | EP     | 0.012                                      | 0.037                     | < 0.005                   | 0.08          | < 0.002       |               | 0.006        | 6.070                       | 28.3                             | 1.049                              |
| 85 09 23 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.04          | < 0.002       | 0.003         | 0.003        | 5.640                       | 7.309                            | 0.975                              |
| 85 09 30 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.06          | < 0.002       | < 0.002       | < 0.002      | 4.510                       | 5.65                             | 0.779                              |
| 85 10 08 | EP     | 0.009                                      | < 0.005                   | < 0.005                   | 0.046         | < 0.002       | < 0.002       | < 0.002      | 3.820                       | 6.271                            | 0.66                               |
| 85 10 15 | EP     | 0.01                                       | < 0.005                   | < 0.005                   | 0.07          | < 0.002       | < 0.002       | 0.005        | 3.790                       | 6.549                            | 0.655                              |
| 85 10 21 | WML    | 0.016                                      | 0.045                     | 0.010                     |               | 0.004         |               |              | 6.070                       | 37.2                             | 2.10                               |
| 85 10 22 | EP     | 0.006                                      | < 0.005                   | < 0.005                   | 0.05          | < 0.002       | 0.004         | 0.007        | 6.200                       | 8.571                            | 1.071                              |

TABLE 5 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 10 29 | EP     | 0.006                                      | 0.012                     | < 0.005                   | 0.06          | 0.003         | 0.006         | 0.017        | 10.900                      | 21.66                            | 2.825                              |
| 85 11 05 | EP     | 0.009                                      | 0.013                     | < 0.005                   | 0.10          | 0.003         | 0.006         | 0.014        | 11.400                      | 26.59                            | 2.955                              |
| 85 11 13 | EP     | 0.011                                      | 0.015                     | < 0.005                   | 0.03          | < 0.002       | 0.006         | 0.007        | 3.980                       | 10.66                            | 0.688                              |
| 85 11 18 | EP     | < 0.005                                    | 0.024                     | < 0.005                   | 0.05          | < 0.002       | < 0.002       | 0.003        | 3.840                       | 11.28                            | 0.664                              |
| 85 11 25 | EP     | < 0.005                                    | 0.038                     | < 0.005                   | 0.09          | 0.004         | < 0.002       | 0.008        | 3.100                       | 12.86                            | 1.071                              |
| 85 11 27 | WML    | 0.049                                      | 0.025                     | 0.001                     |               | 0.010         |               |              | 2.950                       | 19.1                             | 2.50                               |
| 85 12 03 | EP     | < 0.005                                    | 0.062                     | < 0.005                   | 0.10          | 0.004         | < 0.002       | 0.010        | 3.200                       | 19.91                            | 1.106                              |
| 85 12 11 | WML    | 0.039                                      | 0.105                     | 0.002                     |               | 0.014         |               |              | 2.44                        | 30.8                             | 2.95                               |
| 85 12 11 | EP     | 0.007                                      | 0.056                     | < 0.005                   | 0.11          | 0.004         | < 0.002       | 0.009        | 2.440                       | 14.34                            | 0.843                              |
| 85 12 17 | EP     | 0.009                                      | 0.057                     | < 0.005                   | 0.09          | 0.003         | < 0.002       | 0.007        | 2.650                       | 16.28                            | 0.687                              |
| 85 12 23 | EP     | < 0.005                                    | 0.046                     | < 0.005                   | 0.10          | 0.003         | < 0.002       | 0.004        | 2.100                       | 10.16                            | 0.544                              |
| 85 12 30 | EP     | < 0.005                                    | 0.046                     | < 0.005                   | 0.09          | 0.003         | < 0.002       | 0.004        | 1.710                       | 8.274                            | 0.443                              |
| 86 01 07 | EP     | 0.006                                      | 0.044                     | < 0.005                   | 0.09          | 0.003         | < 0.002       | 0.004        | 1.7                         | 8.08                             | 0.44                               |
| 86 01 15 | EP     | 0.033                                      | 0.038                     | < 0.005                   | 0.70          | < 0.002       | < 0.002       | 0.004        | 1.82                        | 11.95                            | 0.31                               |
| 86 01 16 | WML    | 0.197                                      | 0.075                     | 0.003                     |               |               |               |              | 1.82                        | 43.24                            |                                    |
| 86 01 22 | EP     | 0.008                                      | 0.04                      | < 0.005                   | 0.03          | 0.004         | 0.003         | < 0.002      | 2.16                        | 9.89                             | 0.746                              |
| 86 01 27 | EP     | 0.006                                      | 0.039                     | < 0.005                   | 0.04          | 0.005         | < 0.002       | < 0.002      | 1.74                        | 7.52                             | 0.751                              |
| 86 02 03 | EP     | < 0.005                                    | 0.026                     | < 0.005                   | 0.03          | < 0.002       | < 0.002       | < 0.002      | 1.75                        | 5.44                             | 0.302                              |
| 86 02 11 | EP     | < 0.005                                    | 0.022                     | < 0.005                   | 0.06          | < 0.002       | < 0.002       | < 0.002      | 1.52                        | 4.20                             | 0.263                              |
| 86 02 19 | WML    |                                            |                           |                           |               |               |               |              | INACCES.                    |                                  |                                    |
| 86 02 19 | EP     |                                            |                           |                           |               |               |               |              | 1.16                        |                                  |                                    |
| 86 02 26 | EP     | 0.008                                      | 0.070                     | < 0.005                   | 0.21          | 0.021         | 0.014         | 0.127        | 16.3                        | 116.89                           | 29.59                              |
| 86 03 06 | WML    | <0.010                                     | 0.710                     | 0.005                     |               |               |               |              | 7.28                        | 456.02                           |                                    |
| 86 03 06 | EP     | 0.011                                      | 0.031                     | < 0.005                   | 0.05          | 0.006         | < 0.002       | 0.016        | 7.28                        | 29.56                            | 3.77                               |
| 86 03 13 | WML    | 0.100                                      | 0.100                     | 0.001                     |               |               |               |              | 6.07                        | 105.4                            |                                    |
| 86 03 13 | EP     | < 0.005                                    | 0.016                     | < 0.005                   | 0.08          | 0.006         | 0.005         | 0.012        | 6.07                        | 13.64                            | 3.15                               |
| 86 03 18 | WML    | 0.021                                      | 0.050                     | 0.004                     |               |               |               |              | 5.14                        | 33.31                            |                                    |
| 86 03 18 | EP     | < 0.005                                    | 0.005                     | < 0.005                   | 0.05          | 0.005         | < 0.002       | 0.009        | 5.14                        | 6.66                             | 2.22                               |
| 86 03 25 | WML    | 0.28                                       | 0.100                     | 0.003                     |               |               |               |              | 5.00                        | 165.46                           |                                    |
| 86 03 25 | EP     | < 0.005                                    | < 0.005                   | < 0.005                   | 0.12          | 0.005         | < 0.002       | 0.01         | 5.00                        | 6.48                             | 2.16                               |

ND - non-detectable



TABLE 6

## NITROGEN AND PHOSPHORUS WATER QUALITY DATA FOR WESTAR MINING LIMITED-BALMER OPERATIONS - BODIE CREEK

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 01 14 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 82 02 10 | WML    |                                            | 0.820                     |                           |               |               |               |              |                             |                                  |                                    |
| 82 03 03 | WML    | 1.33                                       | 0.33                      | 0.049                     |               |               |               |              |                             |                                  |                                    |
| 82 03 04 | WML    | 0.55                                       | 0.54                      | 0.049                     |               |               |               |              |                             |                                  |                                    |
| 82 03 08 | WML    | 1.17                                       | 0.53                      | 0.020                     |               |               |               |              |                             |                                  |                                    |
| 82 03 11 | WML    | 1.64                                       | 0.578                     | 0.056                     |               |               |               |              | 0.068                       | 13.36                            |                                    |
| 82 03 16 | WML    | 0.40                                       | 0.202                     | 0.30                      |               |               |               |              |                             |                                  |                                    |
| 82 03 19 | WML    | 0.55                                       | 0.502                     | 0.05                      |               |               |               |              |                             |                                  |                                    |
| 82 03 22 | WML    | 0.067                                      | 0.019                     | 0.013                     |               |               |               |              | 0.0482                      | 0.412                            |                                    |
| 82 03 25 | WML    | 0.29                                       | 0.20                      | 0.006                     |               |               |               |              | 0.0567                      | 2.43                             |                                    |
| 82 03 29 | WML    | 0.31                                       | 2.45                      | 0.01                      |               |               |               |              | 0.0992                      | 23.74                            |                                    |
| 82 03 31 | WML    | 0.31                                       | 1.98                      | 0.008                     |               |               |               |              | 0.0935                      | 18.56                            |                                    |
| 82 04 07 | WML    | 0.302                                      | 10.9                      | 0.051                     |               |               |               |              | 0.0907                      | 88.18                            |                                    |
| 82 04 08 | WML    | 0.165                                      | 11.0                      | 0.049                     |               |               |               |              | 0.1813                      | 175.66                           |                                    |
| 82 04 12 | WML    | 0.427                                      | 4.98                      |                           |               |               |               |              | 0.1643                      | 76.76                            |                                    |
| 82 04 15 | WML    | 2.38                                       | 4.76                      | 0.030                     |               |               |               |              | 0.1303                      | 80.72                            |                                    |
| 82 04 22 | WML    | 0.044                                      | 0.340                     | 0.060                     |               |               |               |              | 0.1643                      | 2.80                             |                                    |
| 82 04 23 | WML    | 0.087                                      | 2.30                      | 0.010                     |               |               |               |              | 0.255                       | 52.8                             |                                    |
| 82 04 26 | WML    | 1.28                                       | 1.53                      | 0.201                     |               |               |               |              | 0.238                       | 61.92                            |                                    |
| 82 04 29 | WML    | 0.890                                      | 9.61                      | 0.422                     |               |               |               |              | 2.2606                      | 245.9                            |                                    |
| 82 05 04 | WML    | 0.830                                      | 0.060                     | 0.060                     |               |               |               |              | 0.3343                      | 27.4                             |                                    |
| 82 05 06 | WML    | 0.820                                      | 10.0                      | 0.062                     |               |               |               |              | 0.221                       | 207.8                            |                                    |
| 82 05 12 | WML    | 0.270                                      | 7.40                      | 0.030                     |               |               |               |              | 0.221                       | 147.0                            |                                    |
| 82 05 13 | WML    | 0.160                                      | 11.20                     | 0.020                     |               |               |               |              | 0.238                       | 234.0                            |                                    |
| 82 05 17 | WML    | 0.170                                      | 5.37                      | 0.076                     |               |               |               |              | 0.2975                      | 144.4                            |                                    |
| 82 05 19 | WML    | ND                                         | 5.08                      | 0.052                     |               |               |               |              | 0.215                       | 95.3                             |                                    |
| 82 05 26 | WML    | 0.160                                      | 9.00                      | 0.020                     |               |               |               |              | 0.170                       | 134.8                            |                                    |
| 82 05 27 | WML    | 0.136                                      | 8.40                      | 0.012                     |               |               |               |              | 0.1643                      | 121.3                            |                                    |
| 82 06 02 | WML    | 0.630                                      | 4.20                      | 0.001                     |               |               |               |              | 0.0708                      | 29.6                             |                                    |
| 82 06 03 | WML    | 0.390                                      | 4.0                       | 0.001                     |               |               |               |              |                             |                                  |                                    |
| 82 06 07 | WML    | 0.438                                      | 4.02                      | 0.100                     |               |               |               |              | 0.0822                      | 32.4                             |                                    |
| 82 06 15 | WML    | 0.527                                      | 5.50                      | 0.027                     |               |               |               |              | 0.068                       | 35.6                             |                                    |
| 82 06 18 | WML    | 0.420                                      | 5.60                      | 0.070                     |               |               |               |              |                             |                                  |                                    |
| 82 06 23 | WML    | 0.455                                      | 4.90                      | 0.056                     |               |               |               |              | 0.0637                      | 29.8                             |                                    |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 82 06 24 | WML    | 0.837                                      | 5.20                      | 0.063                     |               |               |               |              | 0.0382                      | 20.1                             |                                    |
| 82 06 29 | WML    | 0.333                                      | 6.80                      | 0.096                     |               |               |               |              |                             |                                  |                                    |
| 82 06 30 | WML    | 0.173                                      | 6.60                      | 0.190                     |               |               |               |              | 0.0382                      | 23.0                             |                                    |
| 82 07 06 | WML    | 0.157                                      | 10.4                      | 0.060                     |               |               |               |              | 0.034                       | 31.2                             |                                    |
| 82 08 04 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 08 09 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 09 01 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 09 07 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 11 09 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 11 23 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 82 12 21 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 83 01 12 | WML    | 0.222                                      | 0.890                     | 0.029                     |               |               |               |              |                             |                                  |                                    |
| 83 01 18 | WML    | 0.333                                      | 0.840                     | ND                        |               |               |               |              |                             |                                  |                                    |
| 83 02 01 | WML    | 0.930                                      | 0.900                     | 0.007                     |               |               |               |              |                             |                                  |                                    |
| 83 03 01 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 83 03 09 | WML    | 0.140                                      | 0.780                     | 0.003                     |               |               |               |              | 0.0283                      | 2.3                              |                                    |
| 83 03 10 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 83 03 17 | WML    | 0.022                                      | 1.24                      | 0.130                     |               |               |               |              |                             |                                  |                                    |
| 83 03 22 | WML    | 0.575                                      | 0.790                     | 0.013                     |               |               |               |              | 0.0153                      | 1.8                              |                                    |
| 83 03 23 | WML    | 1.21                                       | 1.48                      | 0.001                     |               |               |               |              | 0.0147                      | 3.4                              |                                    |
| 83 03 28 | WML    |                                            |                           |                           |               |               |               |              | 0.0227                      |                                  |                                    |
| 83 03 30 | WML    | 0.610                                      | 2.226                     | 0.016                     |               |               |               |              | 0.0227                      | 5.7                              |                                    |
| 83 04 04 | WML    |                                            |                           |                           |               |               |               |              | 0.0210                      |                                  |                                    |
| 83 04 06 | WML    | 0.131                                      | 4.08                      | ND                        |               |               |               |              | 0.0232                      | 8.4                              |                                    |
| 83 04 11 | WML    |                                            |                           |                           |               |               |               |              | 0.0312                      |                                  |                                    |
| 83 04 13 | WML    | 0.542                                      | 9.84                      | 0.036                     |               |               |               |              | 0.0425                      | 38.3                             |                                    |
| 83 04 18 | WML    | 0.070                                      | 10.7                      | 0.033                     |               |               |               |              | 0.0935                      |                                  |                                    |
| 83 04 20 | WML    | 0.276                                      | 15.7                      | 0.074                     |               |               |               |              | 0.1475                      | 204.3                            |                                    |
| 83 04 26 | WML    |                                            |                           |                           |               |               |               |              | 0.2096                      |                                  |                                    |
| 83 04 27 | WML    | 0.362                                      | 12.2                      | 0.070                     |               |               |               |              | 0.164                       | 179.0                            |                                    |
| 83 05 02 | WML    |                                            |                           |                           |               |               |               |              | 0.094                       |                                  |                                    |
| 83 05 04 | WML    | 0.330                                      | 10.9                      | 0.061                     |               |               |               |              | 0.0907                      | 88.5                             |                                    |
| 83 05 10 | WML    |                                            |                           |                           |               |               |               |              | 0.0935                      |                                  |                                    |
| 83 05 11 | WML    | 0.143                                      | 11.2                      | 0.076                     |               |               |               |              | 0.085                       | 83.9                             |                                    |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 83 05 16 | WML    | 0.245                                      | 11.4                      | 0.065                     |               |               |               |              | 0.088                       | 89.0                             |                                    |
| 83 05 17 | WML    | 0.370                                      | 11.2                      | 0.062                     |               |               |               |              | 0.0821                      | 82.5                             |                                    |
| 83 05 26 | WML    | 0.039                                      | 8.00                      | 0.118                     |               |               |               |              | 0.0538                      | 37.9                             |                                    |
| 83 05 27 | WML    |                                            |                           |                           |               |               |               |              | 0.0510                      |                                  |                                    |
| 83 06 01 | WML    | 0.231                                      | 12.5                      | 0.088                     |               |               |               |              | 0.0482                      | 53.4                             |                                    |
| 83 06 02 | WML    |                                            |                           |                           |               |               |               |              | 0.0482                      |                                  |                                    |
| 83 06 07 | WML    |                                            |                           |                           |               |               |               |              | 0.0425                      |                                  |                                    |
| 83 06 08 | WML    | 0.165                                      | 9.78                      | 0.063                     |               |               |               |              | 0.0467                      | 40.4                             |                                    |
| 83 06 14 | WML    |                                            |                           |                           |               |               |               |              | 0.0425                      |                                  |                                    |
| 83 06 15 | WML    | 0.423                                      | 9.90                      | 0.090                     |               |               |               |              | 0.0425                      | 38.2                             |                                    |
| 83 06 20 | WML    | 0.514                                      | 9.20                      | 0.839                     |               |               |               |              | 0.031                       |                                  |                                    |
| 83 06 21 | WML    | 0.439                                      | 8.20                      | 0.031                     |               |               |               |              | 0.0255                      | 19.10                            |                                    |
| 83 06 27 | WML    |                                            |                           |                           |               |               |               |              | 0.0249                      |                                  |                                    |
| 83 06 29 | WML    | 0.587                                      | 7.80                      | 0.075                     |               |               |               |              | 0.0235                      | 17.2                             |                                    |
| 83 07 12 | WML    | 0.500                                      | 7.57                      | 0.129                     |               |               |               |              | 0.0227                      | 16.1                             |                                    |
| 83 07 13 | WML    | 0.030                                      | 7.88                      | 0.079                     |               |               |               |              | 0.0136                      | 9.39                             |                                    |
| 83 08 23 | WML    | 0.435                                      | 9.38                      | 0.107                     |               |               |               |              |                             |                                  |                                    |
| 83 09 14 | WML    | 0.179                                      | 6.58                      | 0.164                     |               |               |               |              |                             |                                  |                                    |
| 83 09 21 | WML    | 1.05                                       | 6.77                      | 0.100                     |               |               |               |              |                             |                                  |                                    |
| 83 10 12 | WML    | 0.470                                      | 4.01                      | 0.073                     |               |               |               |              |                             |                                  |                                    |
| 83 10 18 | WML    | 0.502                                      | 3.93                      | 0.049                     |               |               |               |              |                             |                                  |                                    |
| 83 11 04 | WML    |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 83 12 05 | WML    | 0.947                                      | 11.6                      |                           |               |               |               |              |                             |                                  |                                    |
| 83 12 06 | WML    | 1.07                                       | 12.3                      | 0.040                     |               |               |               |              |                             |                                  |                                    |
| 84 01 09 | WML    | ND                                         | 7.50                      | 0.013                     |               |               |               |              | 0.0119                      | 7.7                              |                                    |
| 84 02 13 | WML    | 0.889                                      | 17.5                      | 0.029                     |               |               |               |              | 0.0113                      | 17.98                            |                                    |
| 84 03 03 | WML    | 0.424                                      | 15.3                      |                           |               |               |               |              | 0.0113                      | 15.4                             |                                    |
| 84 03 13 | WML    | 0.362                                      | 16.1                      | 0.016                     |               |               |               |              | 0.0170                      | 24.2                             |                                    |
| 84 03 21 | WML    |                                            | 11.4                      |                           |               |               |               |              | 0.0193                      | 19.0                             |                                    |
| 84 03 26 | WML    |                                            | 8.56                      |                           |               |               |               |              | 0.0170                      | 12.6                             |                                    |
| 84 04 03 | WML    | 0.367                                      | 11.5                      | 0.013                     |               |               |               |              | 0.0147                      | 15.1                             |                                    |
| 84 04 09 | WML    | 0.327                                      | 6.53                      | 0.026                     |               |               |               |              | 0.0170                      | 10.1                             |                                    |
| 84 04 16 | WML    | 0.221                                      | 10.9                      | 0.020                     |               |               |               |              | 0.0147                      | 14.1                             |                                    |
| 84 04 24 | WML    | 0.442                                      | 14.8                      | 0.074                     |               |               |               |              | 0.0482                      | 63.8                             |                                    |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 84 05 01 | WMT    | 0.409                                      | 28.0                      | 0.372                     |               |               |               |              | 0.0346                      | 86.0                             |                                    |
| 84 05 08 | WML    | 0.046                                      | 20.7                      | 0.045                     |               |               |               |              | 0.0346                      | 62.2                             |                                    |
| 84 05 14 | WML    | 0.575                                      | 14.6                      | 0.150                     |               |               |               |              | 0.1331                      | 176.2                            |                                    |
| 84 05 23 | WML    | 0.481                                      | 19.0                      | 0.015                     |               |               |               |              | 0.1733                      | 291.9                            |                                    |
| 84 05 29 | WML    | 0.339                                      | 16.5                      | 0.120                     |               |               |               |              | 0.1558                      | 228.3                            |                                    |
| 84 06 04 | WML    | 0.292                                      | 11.9                      | 0.100                     |               |               |               |              |                             |                                  |                                    |
| 84 06 11 | WML    | 1.55                                       | 23.3                      | 0.223                     |               |               |               |              | 0.2479                      | 537.0                            |                                    |
| 84 06 18 | WML    | 0.728                                      | 22.1                      | 0.231                     |               |               |               |              | 0.1331                      | 265.2                            |                                    |
| 84 06 25 | WML    | 2.54                                       | 24.8                      | 0.271                     |               |               |               |              | 0.1261                      | 300.8                            |                                    |
| 84 07 16 | WML    | 0.334                                      | 21.5                      | 0.224                     |               |               |               |              | 0.0368                      | 70.1                             |                                    |
| 84 07 18 | WML    | 0.409                                      | 17.3                      | 0.220                     |               |               |               |              |                             |                                  |                                    |
| 84 07 24 | WML    | 0.089                                      | 25.8                      | 0.030                     |               |               |               |              |                             |                                  |                                    |
| 84 07 30 | WML    | 0.545                                      | 8.40                      | 0.160                     |               |               |               |              | 0.0493                      | 38.8                             |                                    |
| 84 08 07 | WML    | 0.102                                      | 15.6                      | 0.012                     |               |               |               |              | 0.0116                      | 15.7                             |                                    |
| 84 08 07 | WML    | 0.098                                      | 15.1                      | 0.080                     |               |               |               |              | 0.0116                      | 15.3                             |                                    |
| 84 08 17 | WML    | 0.380                                      | 11.0                      | 0.052                     |               |               |               |              |                             |                                  |                                    |
| 84 08 23 | WML    | 0.386                                      | 9.40                      | 0.068                     |               |               |               |              |                             |                                  |                                    |
| 84 08 27 | WML    | 0.220                                      | 12.0                      | 0.032                     |               |               |               |              | 0.0113                      | 11.96                            |                                    |
| 84 09 01 | WML    | 0.335                                      | 8.90                      | 0.008                     |               |               |               |              |                             |                                  |                                    |
| 84 09 21 | WML    | 0.487                                      | 8.05                      | 0.008                     |               |               |               |              |                             |                                  |                                    |
| 84 09 24 | WML    | 0.642                                      | 16.0                      | 0.171                     |               |               |               |              | 0.0326                      | 47.4                             |                                    |
| 84 10 01 | WML    | 1.07                                       | 12.3                      | 0.075                     |               |               |               |              | 0.0170                      | 19.75                            |                                    |
| 84 10 10 | WML    | 0.415                                      | 7.53                      | 0.040                     |               |               |               |              | 0.0170                      | 11.7                             |                                    |
| 84 10 19 | WML    | 0.213                                      | 6.33                      | 0.040                     |               |               |               |              | 0.0184                      | 10.5                             |                                    |
| 84 10 22 | WML    | 0.431                                      | 8.80                      | 0.045                     |               |               |               |              | 0.0170                      | 13.6                             |                                    |
| 84 11 01 | WML    | 0.773                                      | 8.00                      | 0.002                     |               |               |               |              | 0.0170                      | 12.9                             |                                    |
| 84 11 13 | WML    | 0.028                                      | 11.8                      | 0.020                     |               |               |               |              | 0.0136                      | 13.9                             |                                    |
| 84 11 26 | WML    | 0.131                                      | 12.8                      | 0.021                     |               |               |               |              |                             |                                  |                                    |
| 84 12 03 | WML    | 0.236                                      | 10.1                      | 0.012                     |               |               |               |              |                             |                                  |                                    |
| 84 12 17 | WML    | 0.160                                      | 4.40                      | 0.020                     |               |               |               |              |                             |                                  |                                    |
| 85 01 15 | WML    | ND                                         | 6.55                      | 0.004                     |               |               |               |              |                             |                                  |                                    |
| 85 02 04 | WML    | 0.421                                      | 4.70                      | 0.012                     |               |               |               |              |                             |                                  |                                    |
| 85 03 05 | WML    | 1.68                                       | 2.75                      | 0.005                     |               |               |               |              | 0.0113                      | 4.3                              |                                    |
| 85 03 11 | WML    | 0.278                                      | 6.00                      | 0.001                     |               |               |               |              | 0.0170                      | 9.2                              |                                    |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 03 18 | WML    | 0.627                                      | 16.0                      | 0.345                     |               |               |               |              | 0.0994                      | 145.8                            |                                    |
| 85 03 25 | WML    | 0.825                                      | 14.0                      | 0.156                     |               |               |               |              | 0.0493                      | 63.8                             |                                    |
| 85 04 01 | WML    | 0.340                                      | 13.2                      | 0.059                     |               |               |               |              | 0.0368                      | 43.2                             |                                    |
| 85 04 01 | EP     | 0.152                                      | 5.5                       | 0.019                     | 14.0          | 0.004         | 0.002         | 0.010        | 0.0368                      | 18.03                            | 0.013                              |
| 85 04 02 | EP     | 0.143                                      | 7.0                       | 0.032                     | 10.0          | 0.071         | 0.022         | 0.182        | 0.0368                      | 22.81                            | 0.226                              |
| 85 04 03 | EP     | 0.171                                      | 8.4                       | 0.038                     | 8.6           | 0.12          | 0.082         | 0.278        | 0.0617                      | 45.89                            | 0.64                               |
| 85 04 04 | EP     | 0.096                                      | 7.1                       | 0.030                     | 13.0          | 0.085         | 0.028         | 0.165        | 0.0430                      | 26.85                            | 0.316                              |
| 85 04 05 | EP     | 0.135                                      | 8.2                       | 0.039                     | 12.0          | 0.057         | 0.037         | 0.154        | 0.0521                      | 37.7                             | 0.257                              |
| 85 04 08 | WML    | 1.93                                       | 14.7                      | 0.020                     |               |               |               |              | 0.0932                      | 134.1                            |                                    |
| 85 04 08 | EP     | 0.82                                       | 11.0                      | 0.130                     | 17.0          | 0.003         | 0.004         | 0.297        | 0.0932                      | 96.23                            | 0.024                              |
| 85 04 09 | EP     | 1.16                                       | 15.0                      | 0.170                     | 17.0          | < 0.002       | 0.005         | 0.104        | 0.1122                      | 158.3                            | 0.019                              |
| 85 04 10 | EP     | 0.956                                      | 13.0                      | 0.130                     | 14.0          | 0.010         | 0.014         | 0.552        | 0.1688                      | 205.4                            | 0.146                              |
| 85 04 11 | EP     | 0.933                                      | 15.0                      | 0.300                     | 15.0          | 0.017         | 0.023         | 0.630        | 0.2311                      | 324.1                            | 0.339                              |
| 85 04 12 | EP     | 1.19                                       | 13.0                      | 0.250                     | 14.0          | 0.007         | 0.030         | 0.070        | 0.2249                      | 280.6                            | 0.136                              |
| 85 04 15 | WML    | 0.855                                      | 9.65                      | 0.115                     |               |               |               |              | 0.2690                      | 246.8                            |                                    |
| 85 04 15 | EP     | 1.16                                       | 9.7                       | 0.122                     | 12.0          | 0.006         | 0.010         | 0.232        | 0.2688                      | 255.0                            | 0.139                              |
| 85 04 16 | EP     | 0.992                                      | 8.6                       | 0.122                     | 11.0          | 0.003         | 0.013         | 0.642        | 0.2310                      | 193.9                            | 0.06                               |
| 85 04 17 | EP     |                                            |                           |                           |               |               |               |              | 0.1870                      |                                  |                                    |
| 85 04 18 | EP     | 1.2                                        | 6.4                       | 0.123                     | 8.2           | 0.004         | 0.011         | 0.016        | 0.1872                      | 124.9                            | 0.065                              |
| 85 04 19 | EP     | 1.09                                       | 8.1                       | 0.106                     | 13.0          | 0.005         | 0.009         | 0.230        | 0.1623                      | 130.4                            | 0.07                               |
| 85 04 22 | WML    | 0.710                                      | 8.17                      | 0.250                     |               |               |               |              | 0.1250                      | 98.6                             |                                    |
| 85 04 22 | EP     | 1.27                                       | 9.0                       | 0.158                     | 13.0          | 0.004         | 0.004         | 0.093        | 0.1246                      | 112.3                            | 0.043                              |
| 85 04 23 | EP     | 1.27                                       | 8.9                       | 0.143                     | 13.0          | 0.004         | 0.003         | 0.038        | 0.1056                      | 94.09                            | 0.036                              |
| 85 04 24 | EP     | 1.17                                       | 9.6                       | 0.148                     | 12.0          | < 0.002       | < 0.002       | 0.033        | 0.0932                      | 87.92                            | 0.016                              |
| 85 04 25 | EP     | 1.08                                       | 9.83                      | 0.150                     | 12.0          | 0.009         |               | 0.124        | 0.0963                      | 92.0                             | 0.075                              |
| 85 04 25 | EP     | 5.74                                       | 8.23                      | 0.178                     | 10.0          | 0.008         | < 0.002       | 0.077        | 0.0963                      | 117.7                            | 0.067                              |
| 85 04 26 | EP     | 5.95                                       | 8.96                      | 0.190                     | 13.0          | < 0.002       | < 0.002       | 0.005        | 0.0745                      | 97.2                             | 0.013                              |
| 85 04 29 | EP     | 6.32                                       | 9.68                      | 0.203                     | 14.0          | 0.003         | 0.004         | 0.002        | 0.1569                      | 219.7                            | 0.041                              |
| 85 04 30 | WML    | 2.44                                       | 8.40                      | 0.149                     |               |               |               |              | 0.1750                      | 166.2                            |                                    |
| 85 04 30 | EP     | 6.31                                       | 8.2                       | 0.214                     | 12.0          | 0.003         | 0.004         | 0.002        | 0.1747                      | 222.2                            | 0.045                              |
| 85 05 01 | EP     | 5.43                                       | 7.51                      | 0.216                     | 9.5           | 0.004         | 0.008         | 0.004        | 0.1934                      | 219.8                            | 0.067                              |
| 85 05 02 | WML    | 1.70                                       | 7.85                      | 0.156                     |               |               |               |              | 0.1930                      | 161.8                            |                                    |
| 85 05 02 | WML    | 0.835                                      | 7.1                       | 0.148                     |               |               |               |              | 0.1930                      | 134.8                            |                                    |
| 85 05 02 | EP     | 4.6                                        | 7.32                      | 0.213                     | 8.4           | < 0.002       | 0.008         | 0.006        | 0.2237                      | 234.5                            | 0.039                              |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 05 03 | EP     | 4.5                                        | 7.67                      | 0.197                     | 8.9           | 0.003         | 0.014         | 0.005        | 0.2373                      | 253.6                            | 0.062                              |
| 85 05 06 | WML    | 1.91                                       | 7.40                      | 0.056                     |               |               |               |              | 0.1750                      | 141.6                            |                                    |
| 85 05 06 | EP     | 4.1                                        | 6.9                       | 0.160                     | 8.8           | < 0.002       | 0.006         | 0.006        | 0.1747                      | 168.4                            | 0.03                               |
| 85 05 07 | EP     | 4.4                                        | 7.07                      | 0.180                     | 8.9           | 0.004         | 0.012         | 0.013        | 0.1685                      | 169.6                            | 0.058                              |
| 85 05 08 | EP     | 0.74                                       | 5.11                      | 0.170                     | 9.0           | < 0.002       | < 0.002       | 0.003        | 0.1623                      | 84.42                            | 0.028                              |
| 85 05 09 | EP     | 1.05                                       | 5.31                      | 0.160                     | 10.0          | < 0.002       | < 0.002       | 0.040        | 0.1495                      | 84.22                            | 0.026                              |
| 85 05 11 | EP     | 0.93                                       | 5.01                      | 0.075                     | 8.3           | < 0.002       | < 0.002       | 0.067        | 0.1433                      | 74.47                            | 0.025                              |
| 85 05 13 | WML    | 2.00                                       | 7.05                      | 0.072                     |               |               |               |              | 0.1120                      | 88.3                             |                                    |
| 85 05 13 | EP     | 1.15                                       | 2.79                      | 0.150                     | 8.1           | < 0.002       | < 0.002       | 0.066        | 0.1122                      | 39.65                            | 0.019                              |
| 85 05 14 | WML    | 2.73                                       | 9.0                       | 0.094                     |               |               |               |              | 0.1060                      | 108.3                            |                                    |
| 85 05 14 | EP     | 0.91                                       | 4.038                     | 0.092                     | 8.0           | < 0.002       | 0.003         | 0.044        | 0.1056                      | 45.98                            | 0.018                              |
| 85 05 15 | EP     | 0.94                                       | 3.9                       | 0.099                     | 7.5           | 0.003         | 0.003         | 7.5          | 0.1056                      | 45.07                            | 0.027                              |
| 85 05 16 | EP     | 0.995                                      | 4.496                     | 0.094                     | 7.4           | < 0.002       | 0.004         | 0.119        | 0.1056                      | 50.96                            | 0.018                              |
| 85 05 17 | EP     | 0.76                                       | 3.505                     | 0.007                     | 5.5           | < 0.002       | < 0.002       | 5.5          | 0.1172                      | 43.47                            | 0.02                               |
| 85 05 21 | WML    | 1.97                                       | 6.20                      | 0.079                     |               |               |               |              | 0.0990                      | 70.8                             |                                    |
| 85 05 21 | EP     | 0.68                                       | 4.57                      | 0.090                     | 7.4           | < 0.002       | < 0.002       | 0.048        | 0.0994                      | 45.86                            | 0.017                              |
| 85 05 22 | EP     | 0.64                                       | 4.37                      | 0.086                     | 6.1           | 0.003         | 0.009         | 0.070        | 0.0869                      | 38.26                            | 0.023                              |
| 85 05 23 | EP     | 0.51                                       | 3.81                      | 0.097                     | 6.8           | < 0.002       | 0.920         | 0.086        | 0.0807                      | 30.8                             | 0.014                              |
| 85 05 24 | EP     | 0.58                                       | 4.64                      | 0.103                     | 6.9           | < 0.002       | < 0.002       | 0.076        | 0.0745                      | 34.26                            | 0.013                              |
| 85 05 27 | WML    | 6.82                                       | 7.60                      | 0.290                     |               |               |               |              | 0.0617                      | 78.4                             |                                    |
| 85 05 27 | EP     | 0.75                                       | 5.97                      | 0.348                     | 8.4           | 0.006         | < 0.002       | 0.012        | 0.0765                      | 46.72                            | 0.04                               |
| 85 05 27 | EP     | 0.802                                      | 5.0                       | 0.270                     | 7.9           | 0.021         |               | 0.021        | 0.0618                      | 32.4                             | 0.112                              |
| 85 05 28 | EP     | 1.52                                       | 12.84                     | 0.264                     | 13.0          | < 0.002       | < 0.002       | 0.015        | 0.0493                      | 62.29                            | 0.009                              |
| 85 05 29 | EP     | 0.62                                       | 5.11                      | 0.249                     | 7.9           | < 0.002       | < 0.002       | 0.027        | 0.0555                      | 28.67                            | 0.01                               |
| 85 05 30 | WML    | 4.53                                       | 13.5                      | 0.513                     |               |               |               |              | 0.0994                      | 120.3                            |                                    |
| 85 05 30 | EP     | 1.48                                       | 7.22                      | 0.455                     | 7.8           | 0.009         | < 0.002       | 0.038        | 0.0994                      | 78.62                            | 0.077                              |
| 85 06 03 | WML    | 1.11                                       | 5.85                      | 0.075                     |               |               |               |              | 0.0390                      | 20.0                             |                                    |
| 85 06 03 | EP     | 0.25                                       | 4.3                       | 0.068                     | 6.8           | 0.025         | 0.011         | 0.055        | 0.0391                      | 15.6                             | 0.084                              |
| 85 06 04 | EP     | 0.31                                       | 4.4                       | 0.073                     | 6.01          | < 0.002       | 0.003         | 0.047        | 0.0357                      | 14.75                            | 0.006                              |
| 85 06 05 | EP     | 0.36                                       | 5.53                      | 0.095                     | 7.2           | < 0.002       | 0.004         | 0.050        | 0.0357                      | 18.46                            | 0.006                              |
| 85 06 06 | EP     | 0.36                                       | 8.40                      | 0.110                     | 10.1          | < 0.002       | 0.003         | 0.013        | 0.0334                      | 25.6                             | 0.006                              |
| 85 06 07 | EP     | 0.33                                       | 9.49                      | 0.164                     | 11.0          | 0.016         | 0.014         | 0.930        | 0.0425                      | 36.66                            | 0.059                              |
| 85 06 10 | WML    | 3.98                                       | 22.6                      | 0.500                     |               |               |               |              | 0.0618                      | 123.3                            |                                    |
| 85 06 10 | EP     | 1.5                                        | 21.7                      | 0.700                     | 24.0          | 0.003         | < 0.002       | 0.027        | 0.0617                      | 127.4                            | 0.016                              |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 06 11 | EP     | 1.66                                       | 24.7                      | 1.100                     | 27.0          | < 0.002       | < 0.002       | 0.036        | 0.0617                      | 146.4                            | 0.011                              |
| 85 06 12 | EP     | 1.21                                       | 12.9                      | 0.260                     | 20.0          | < 0.002       | < 0.002       | 0.027        | 0.0538                      | 66.80                            | 0.009                              |
| 85 06 13 | EP     | 1.36                                       | 14.1                      | 0.320                     | 18.0          | < 0.002       | < 0.002       | 0.024        | 0.0538                      | 73.35                            | 0.009                              |
| 85 06 14 | EP     | 1.25                                       | 13.0                      | 0.190                     | 18.0          | < 0.002       | < 0.002       | 0.020        | 0.0617                      | 76.98                            | 0.011                              |
| 85 06 17 | WML    | 0.790                                      | 11.0                      | 0.278                     |               |               |               |              | 0.0493                      | 48.0                             |                                    |
| 85 06 17 | WML    | 1.25                                       | 11.4                      | 0.278                     |               |               |               |              | 0.0870                      | 81.4                             |                                    |
| 85 06 17 | WML    | 1.22                                       | 11.6                      | 0.299                     |               |               |               |              | 0.0493                      | 50.7                             |                                    |
| 85 06 17 | EP     | 1.18                                       | 12.0                      | 0.200                     | 14.0          | < 0.002       | < 0.002       | 0.046        | 0.0493                      | 56.99                            | 0.009                              |
| 85 06 17 | EP.    | 0.93                                       | 12.6                      | 0.290                     | 14.0          | 0.014         |               | 0.018        | 0.0588                      | 70.2                             | 0.071                              |
| 85 06 18 | EP     | 1.19                                       | 11.0                      | 0.254                     | 15.0          | < 0.002       | < 0.002       | 0.006        | 0.0683                      | 73.43                            | 0.012                              |
| 85 06 19 | EP     | 0.86                                       | 12.4                      | 0.009                     | 17.0          | 0.018         | < 0.002       | 0.067        | 0.1184                      | 135.7                            | 0.184                              |
| 85 06 20 | EP     | 1.45                                       | 14.5                      | 0.250                     | 19.0          | < 0.002       | < 0.002       | 0.020        | 0.0388                      | 54.31                            | 0.007                              |
| 85 06 21 | EP     | 1.21                                       | 10.0                      | 0.203                     | 19.0          | 0.003         | < 0.002       | 0.16         | 0.1246                      | 122.9                            | 0.032                              |
| 85 06 24 | WML    | 3.14                                       | 21.5                      | 0.596                     |               |               |               |              | 0.1048                      | 228.5                            |                                    |
| 85 06 24 | EP     | 1.12                                       | 17.0                      | 0.336                     | 21.0          | 0.003         | < 0.002       | 0.042        | 0.1048                      | 167.1                            | 0.027                              |
| 85 06 25 | EP     | 1.08                                       | 20.0                      | 0.406                     | 23.0          | < 0.002       | < 0.002       | 0.052        | 0.0425                      | 78.9                             | 0.007                              |
| 85 06 26 | EP     | 1.18                                       | 17.3                      | 0.410                     | 18.0          | < 0.002       | < 0.002       | 0.025        | 0.0326                      | 53.21                            | 0.006                              |
| 85 06 27 | EP     | 1.08                                       | 10.7                      | 0.406                     | 18.0          | < 0.002       | < 0.002       | < 0.002      | 0.0382                      | 40.22                            | 0.007                              |
| 85 06 28 | EP     | 1.18                                       | 12.9                      | 0.412                     | 16.0          | < 0.002       | < 0.002       | 0.020        | 0.0339                      | 42.45                            | 0.006                              |
| 85 07 02 | EP     | 0.742                                      | 20.7                      | 0.465                     | 22.0          | < 0.002       | < 0.002       | 0.007        | 0.0339                      | 64.16                            | 0.006                              |
| 85 07 08 | EP     | 0.4                                        | 24.9                      | 0.990                     | 27.0          | 0.005         | < 0.002       | 0.006        | 0.0221                      | 50.2                             | 0.01                               |
| 85 07 15 | WML    | 0.100                                      | 24.0                      | 0.492                     |               |               |               |              | 0.0170                      | 36.1                             |                                    |
| 85 07 15 | EP     | 0.97                                       | 24.7                      | 0.530                     | 26.0          | 0.006         | < 0.002       | 0.010        | 0.0142                      | 32.14                            | 0.007                              |
| 85 07 22 | EP     | 0.23                                       | 15.6                      | 0.188                     | 21.0          | 0.006         | < 0.002       | 0.006        | 0.0170                      | 23.53                            | 0.009                              |
| 85 07 29 | EP     | 0.32                                       | 26.9                      | 0.205                     | 61.0          | 0.060         | < 0.002       | 0.059        | 0.0193                      | 45.73                            | 0.100                              |
| 85 08 07 | EP     | 0.64                                       | 18.0                      | 0.440                     | 27.0          | < 0.002       | < 0.002       | 0.006        | 0.0170                      | 28.02                            | 0.003                              |
| 85 08 12 | WML    | 1.10                                       | 25.7                      | 0.472                     |               |               |               |              | 0.0221                      | 52.1                             |                                    |
| 85 08 12 | EP     | 0.65                                       | 27.0                      | 0.200                     | 42.0          | < 0.002       | < 0.002       | 0.055        | 0.0220                      | 52.94                            | 0.004                              |
| 85 08 19 | EP     | 2.6                                        | 32.0                      | 0.440                     | 43.0          | < 0.002       | < 0.002       | 0.018        | 0.0213                      | 64.48                            | 0.004                              |
| 85 08 27 | EP     | 2.6                                        | 26.0                      | 0.230                     | 31.0          | 0.003         | < 0.002       | 0.014        | 0.0136                      | 33.88                            | 0.004                              |
| 85 09 03 | EP     | 1.7                                        | 21.0                      | 0.410                     | 27.0          | 0.003         | < 0.002       | 0.017        | 0.0207                      | 41.33                            | 0.005                              |
| 85 09 10 | EP     | 1.5                                        | 18.0                      | 0.140                     | 22.0          | < 0.002       | < 0.002       | 0.014        | 0.0207                      | 35.13                            | 0.004                              |
| 85 09 16 | WML    | 2.08                                       | 17.2                      | 0.224                     |               |               |               |              | 0.0255                      | 43.0                             |                                    |
| 85 09 16 | EP     | 0.92                                       | 21.0                      | 0.093                     | 24.0          | < 0.002       | < 0.002       | 0.027        | 0.0255                      | 48.5                             | 0.004                              |

TABLE 6 (Continued)

| DATE     | AGENCY | NH <sub>3</sub> /NH <sub>4</sub><br>(mg/L) | NO <sub>3</sub><br>(mg/L) | NO <sub>2</sub><br>(mg/L) | TDN<br>(mg/L) | TDP<br>(mg/L) | SRP<br>(mg/L) | TP<br>(mg/L) | FLOW<br>(m <sup>3</sup> /s) | INORGANIC<br>N LOADING<br>(kg/d) | TOTAL DISS.<br>P LOADING<br>(kg/d) |
|----------|--------|--------------------------------------------|---------------------------|---------------------------|---------------|---------------|---------------|--------------|-----------------------------|----------------------------------|------------------------------------|
| 85 09 16 | EP     | 2.1                                        | 16.0                      | 0.240                     | 19.0          | 0.007         |               | 0.170        | 0.0255                      | 40.4                             | 0.015                              |
| 85 09 17 | WML    | 2.93                                       | 14.1                      | 0.200                     |               |               |               |              | 0.0388                      | 57.8                             |                                    |
| 85 09 23 | EP     | 1.8                                        | 20.0                      | 0.340                     | 25.0          | < 0.002       | < 0.002       | 0.024        | 0.0807                      | 154.4                            | 0.014                              |
| 85 09 30 | EP     | 0.876                                      | 9.7                       | 0.119                     | 78.0          | < 0.002       | < 0.002       | 0.023        | 0.0170                      | 15.71                            | 0.003                              |
| 85 10 08 | EP     | 2.67                                       | 49.0                      | 1.26                      | 61.0          | < 0.002       | 0.006         | 0.150        | 0.0142                      | 64.94                            | 0.002                              |
| 85 10 15 | EP     | 4.15                                       | 33.7                      | 0.411                     | 57.0          | < 0.002       | 0.005         | 3.0          | 0.0142                      | 46.94                            | 0.002                              |
| 85 10 21 | EP     |                                            |                           |                           |               |               |               |              |                             |                                  |                                    |
| 85 10 29 | EP     | 1.33                                       | 29.8                      | 0.214                     | 33.0          | < 0.002       | 0.008         | 0.156        | 0.05097                     | 138.0                            | 0.009                              |
| 85 11 05 | EP     | 1.3                                        | 24.8                      | 0.181                     | 27.0          | < 0.002       | 0.003         | 0.028        | 0.05097                     | 115.7                            | 0.009                              |
| 85 11 13 | EP     | 0.164                                      | 6.46                      | 0.029                     | 6.7           | < 0.002       | 0.004         | 0.043        |                             |                                  |                                    |
| 85 11 18 | EP     | 0.495                                      | 11.7                      | 0.108                     | 13.0          | < 0.002       | 0.007         | 0.036        | 0.1415                      | 150.4                            | 0.024                              |
| 85 12 11 | EP     | 0.295                                      | 5.227                     | 0.033                     | 7.5           | 0.007         | 0.005         | 0.030        | 0.00283                     | 1.359                            | 0.002                              |
| 85 12 11 | WML    | 0.395                                      | 7.50                      | 0.090                     |               |               |               |              | 0.0028                      | 1.9                              |                                    |
| 86 01 2  | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 86 01 22 | EP     | 0.035                                      | 0.445                     | < 0.005                   | 0.5           | 0.007         | < 0.002       | < 0.002      | NO FLOW                     |                                  |                                    |
| 86 02 11 | EP     | 0.042                                      | 0.626                     | < 0.005                   | 0.65          | < 0.002       | < 0.002       | < 0.002      | NO FLOW                     |                                  |                                    |
| 86 02 19 | WML    |                                            |                           |                           |               |               |               |              | NO FLOW                     |                                  |                                    |
| 86 02 26 | EP     | 0.176                                      | 1.05                      | 0.014                     | 1.3           | 0.037         | 0.037         | 0.718        | 0.2249                      | 24.09                            | 0.719                              |
| 86 03 06 | WML    | 0.010                                      | 8.40                      | 0.500                     |               |               |               |              | 0.0683                      | 52.6                             |                                    |
| 86 03 06 | EP     | 0.021                                      | 0.508                     | 0.006                     | 0.61          | 0.012         | 0.011         | 0.050        | 0.0683                      | 3.157                            | 0.071                              |
| 86 03 13 | WML    | 0.125                                      | 0.650                     | 0.010                     |               |               |               |              | 0.0425                      | 2.9                              |                                    |
| 86 03 13 | EP     | 0.013                                      | 0.283                     | < 0.005                   | 0.42          | 0.005         | < 0.002       | 0.030        | 0.0425                      | 1.105                            | 0.018                              |
| 86 03 18 | WML    | 0.069                                      | 0.390                     | 0.011                     |               |               |               |              | 0.0326                      | 1.3                              |                                    |
| 86 03 18 | EP     | 0.013                                      | 0.311                     | < 0.005                   | 0.33          | 0.008         | < 0.002       | 0.014        | 0.0334                      | 0.949                            | 0.023                              |
| 86 03 25 | WML    | 0.023                                      | 0.350                     | < 0.005                   |               |               |               |              | 0.0326                      |                                  |                                    |
| 86 03 25 | EP     | 0.014                                      | 0.261                     | 0.006                     | 0.37          | 0.008         | < 0.002       | 0.022        | 0.0334                      | 0.811                            | 0.023                              |

ND - non-detectable