

APPENDIX C

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WATER BALANCE, WATER QUALITY AND REGULATORY PROPOSALS

This appendix is a summary of the Prairie Creek Mine site water management plan, Water Storage Pond (WSP) water balance (partly based on DAR Appendix 9), site discharge water quality and receiving water quality, and presents regulatory proposals based on these.

WATER STORAGE POND

The WSP design has not been changed significantly since production of the DAR Addendum. The WSP is proposed to be a two-celled pond (see Figure 1), one cell for mine water and one for process water. The approach to stabilizing the previously unstable pond backslope remains a combination of slope reduction (excavation), buttress and fill apron placement, and a minimum pond water level of 877 m elevation. Water from the two cells will not mix in the WSP, they will be kept separate. The reason for this is explained below.

WATER MANAGEMENT PLAN

CZN's proposed water management plan is illustrated in Figure 2, and explained as follows:

- All mine water is sent to Cell B in the WSP first. The cell then feeds water to the Mill and the Water Treatment Plant (WTP); and,
- All process water is sent to Cell A in the WSP first. Like the mine water cell, the cell then feeds water to the Mill and the Water Treatment Plant (WTP).

Process water is 'aged' during storage in Cell A for several months before it is fed to the WTP. Storage in the cells also maintains consistent water quality in both feed water streams to the Mill and WTP.

WATER BALANCE

Water balances have been developed for the WSP based on four scenarios of mine drainage. Mine drainage will be the largest flow of water to be managed. Estimates of mine drainage were made by Robertson Geoconsultants (RGC, see IR2 reply, Appendix F, Addendum F1). Four scenarios have been developed, termed 'Low Estimate', 'Best Estimate', 'High K' and 'High K + PCAA'. The first three estimates are based on different hydraulic conductivities (K) for the Vein Fault, which is believed to control the ingress of groundwater laterally (from all sides of the underground mine) and vertically (from infiltration of surface water from above). The last estimate assumes a hydraulic connection between the Vein Fault and the Prairie Creek Alluvial Aquifer (PCAA). Predicted monthly mine drainage estimates for these four scenarios are given in Table 1. The table also includes RGC's assessment of the probability of each scenario occurring. Note that the 'best estimate' scenario is overwhelmingly favoured to be the most accurate prediction (70%), whereas the 'High K + PCAA' scenario is considered to be highly unlikely (5%).

Water balances for each of the four mine drainage scenarios are given in Tables 2 through 5. The composition of the tables is similar, except for the mine drainage flows going to Cell B in the WSP and the seasonal distribution of mine water flows sent from Cell B to the WTP.

The top part of each water balance table provides monthly flow rates in Litres/second for:

- process water entering and leaving the Mill, entering the WSP, and being sent to the WTP; and,
- mine water entering the WSP, and being sent to the Mill and WTP.

These flow rates are illustrated in a chart for each water balance, shown in Figures 3 through 6. Water entering and leaving the Mill stays constant through the year. Mine drainage and water treatment rates vary seasonally. Mill water feed is comprised of a blend of 65% process water from Cell A and 35% mine water from Cell B. This will maintain a steady quality of water entering the process, and ensure the process involving separation of metal concentrates is not disrupted. Approximately 27% of Mill effluent is treated and discharged to avoid the build-up of major ions and metals in feed water.

The WSP water balance appears below the top part of each table, and consists of monthly flows in cubic metres, most of which are based on the flow rates in the top part of the table. The balance is subdivided in Cell A (process water) and Cell B (mine water, stockpile water and effluent from the Sewage Treatment Plant (STP)). The cells are assumed to be of equal volume (225,000 m³). Other assumptions made to derive the water balance are as follows:

- Upslope ditches will divert runoff so that it will not report to the WSP;
- Direct precipitation is based on the values derived for Prairie Creek in 1980 and the water reports to the balance immediately, even in winter (there may be snow and ice cover, but this will occupy volume and therefore is considered to be water);
- Evaporation is based on the values derived for Prairie Creek in 1980 with minor adjustments of the May and October values;
- Drainage from the Waste Rock Pile, with a catchment area of 50,000 m², flows into Cell B during the open water season, and is based on 70% of precipitation; and,
- Drainage from the DMS and ore stockpiles with a combined catchment area of 1,650 m² also flows into Cell B during the open water season, and is based on 100% of precipitation.

Each cell in the water balance has total inflows and total outflows, with the difference representing a change in cell storage which is either positive (gaining) or negative (losing). When the annual sum of monthly differences is near zero (see difference for the year), the cell is considered to be in balance. Balance in each cell is achieved by adjusting the rates at which water is sent to the WTP for treatment. Cumulative difference (Cum. Diff.) is the sum of the difference from a particular month added to the cumulative difference for the previous month. This indicates if the cell is consistently gaining or losing water over several months.

With a maximum water level elevation in each cell of 880 m, and minimum water level of 877 m, each cell has 110,000 m³ of equivalent storage between the two water levels. Therefore, the cumulative difference for each cell cannot exceed plus or minus 110,000 m³ because the cell would then be too full or too empty, respectively. In the water balances, the cells are losing water through the summer when the majority of the water treatment occurs, and gaining water through the winter when water treatment is cut back. October is usually the month when each cell starts gaining water after the summer. If the minimum water level is reached at the beginning of October, each cell can then not gain more than 110,000 m³ through the winter until water treatment ramps up again in May. In developing the balances, a maximum water 'gain' target of less than 100,000 m³ was assumed to provide for contingencies. In each cell water balance, the last line 'Cum. Diff. Oct-Apr' tracks the accumulation of water over the October-April period. Whatever the total gain is over that period, it follows that the total loss will be similar over the May-September period.

Keeping the mine water and process water separate maintains process water in a 'neat' state for feeding water to the Mill and WTP. The quality of water feeding the Mill from the WTP is controlled by the proportions from each cell. Allowing the water levels in each cell to fluctuate seasonally means that the cells can gain water in winter and less water needs to be treated for discharge over that period.

Other features of the water balances are as follows:

- Mine water and Mill effluent inflows, Mill process feed water outflows and flows to water treatment dominate;
- Precipitation inflows are relatively small from a volume perspective, so possible adjustments for current climatic conditions, and/or global warming, will have a negligible effect on the balance. By the same token, evaporative losses will have even less effect; and,
- Inflows from the Waste Rock Pile are less significant than direct precipitation, and from the stockpiles (ore and DMS) much less so.

In Tables 2 through 5, below the WSP water balances, mine water and process water monthly flow volumes (in cubic metres) being sent to treatment are shown first, followed by their respective rates (in Litres/second). These rates are the same as those in the top part of the tables. Rates are included for flows monitored in the main camp ditch on site. The three flows in combination comprise the total discharge to the environment. The last line shows the proportion of treated process water in the total discharge as a ratio.

DISCHARGE WATER QUALITY

In October 2010, water samples were collected from the mine, the main camp ditch and Prairie Creek upstream of the airstrip. Mine water was collected from the flooded Decline and the 870 Level portal separately. The Decline currently contributes very little water to the 870 Level, and therefore the portal sample is primarily drainage from the Vein Fault which is exposed underground in several cross-cuts. At the same time, a representative sample of Vein mineralization was collected.

In December 2010, metallurgical testing was initiated by SGS at their facility in Vancouver, B.C. The main purpose of the work was to generate representative process water to be used in water treatment testing, and subsequent toxicity studies. SGS used the Vein mineral sample collected, and a 50:50 blend of the Decline water and 870 Level water. This blend is considered to be representative of mine water quality during operations based on the 'best guess' inflows. 870 Level water is mineralized and strongly influenced by infiltration from surface through the Vein. Decline water has a lower metal content, but marginally higher TDS and hardness, and is considered more representative of water that will be encountered in greater quantities as the mine is developed to lower levels. If mine inflows prove to be greater than the 'best guess' case, a greater proportion of 'Decline type' water is considered likely.

In January 2011, process water from the metallurgical testing was provided to SGS-CEMI in Burnaby, B.C. for water treatment. Treatment was completed on this water (acidification, sulphide addition, lime addition) as well as mine water (lime addition), again based on a 50:50 blend of Decline water and 870 Level water.

Samples of water before and after treatment and the ditch water were analysed for total and dissolved metals, major ions, nitrogen (N) species and nutrients. Results for the treated and ditch waters are summarized in Table 6. Based on the concentrations in the table, and the flow rates for the individual discharge streams as defined in Tables 2 through 5, a 'blended' discharge water quality for each parameter was derived for each of the four water balance scenarios. Blended water qualities are shown in Tables 7 through 10.

Table 6 contains N species concentrations for drainage water from the Diavik underground operation. Mining at this operation uses emulsion explosives only, and with strict explosive management practices. CZN is also planning to use emulsion explosives only, and will adopt similarly strict explosive management practices. Diavik records N concentrations in underground drainage water frequently. Ammonia and nitrate concentrations were assumed for mine water discharge quality in Table 6 for the four water balance scenarios based on the Diavik data (see IR2 reply, Appendix F for the data). This is considered a worst-case for ammonia because oxidation and degradation in the WSP for several months will reduce concentrations.

Table 6 also contains water quality from Diavik's sewage treatment plant (STP). Their STP uses alum to precipitate phosphorous. A similar scheme will be adopted at Prairie Creek. Effluent from the Prairie Creek Mine STP will be sent to Cell B in the WTP. It will represent approximately 0.88% of the total cell inflow on an annual basis ('best estimate' scenario). The Diavik 2009 total phosphorous concentration (0.0414 mg/L) was used to adjust the mine water quality in Table 6 based on flow proportions. Diavik data for 2010 has recently been obtained and is discussed below.

Treated process water quality from the January 2011 testing program is poorer than that generated in a similar program in October 2010 for every constituent except mercury and selenium (Table 11). Arsenic, cadmium, copper, lead and zinc concentrations were much higher. This is attributed to higher concentrations in the untreated water and a lower effectiveness of treatment. SGS believe that process reagent residues may be to blame as only a few weeks elapsed between process water generation and treatment. During operations, process water will be stored in the WSP for several months and reagent residues are expected to completely

degrade. As a result, the 2011 treated process water quality is considered to be a worst-case, and potentially un-representative.

Treated mine water in 2011 was similar to results from 2010, although arsenic, copper, selenium and zinc concentrations were lower, and lead higher (Table 11). The lead and zinc values correlate with untreated water quality. However, the arsenic, copper and selenium values do not, and suggest slightly more effective treatment in 2011.

Blended discharge water quality for the four water balance scenarios was also generated using the September 2010 treated water results. Values are found in Tables 12 through 15. Arsenic, copper and zinc concentrations were higher in treated mine water in 2010 than 2011, and higher in treated process water in 2011 than 2010. Therefore, blended discharge quality was calculated using the higher concentrations from both years. Those values are contained in Tables 16 through 19.

RECEIVING WATER QUALITY

Table 6 includes concentrations for upstream Prairie Creek. These represent the medians derived by Hatfield Consultants (see their Appendix F attached to the CZN May 11, 2011 letter) from the database used previously to derive site specific water quality criteria using the reference condition approach (RCA). Means were used previously, and therefore most of the predicted in-stream parameter concentrations will vary from those presented in the IR2 reply. Table 6 also includes the RCA objective (revised by Hatfield using the 90th percentile) and CCME water quality guideline values. Assessments by Hatfield Consultants (Appendix D of the IR2 reply, and Appendix D attached to the CZN May 11, 2011 letter) indicate the appropriately protective objectives.

Mean, minimum and maximum flows for Prairie Creek at Harrison Creek and at the Park Boundary were derived previously based on a Water Survey of Canada (WSC) station that operated adjacent to the Mine site for 16 years. The WSC data was used to derive monthly maximum and minimum flows (the highest and lowest flows recorded for each month over the 16-year record). The computed mean, low and high flows for Prairie Creek at Harrison Creek and at the Park Boundary are given in Table 20.

Upstream Prairie Creek water (quality in Table 6, flow in Table 20) was numerically blended with the site discharge blends described above to produce receiving water quality assuming complete mixing. For 2011 treated water quality data and the four water balance scenarios, in-stream blended concentrations for Prairie Creek at Harrison Creek and at the Park Boundary are given in Tables 21 through 32 (main metals, other metals, other parameters). For 2010 treated water quality data and the four water balance scenarios, in-stream blended concentrations for Prairie Creek at Harrison Creek and at the Park Boundary are given in Tables 33 through 40 (main metals, other metals). For those parameters that were higher in treated mine water in 2010 than 2011, and higher in treated process water in 2011 than 2010 (arsenic, copper, zinc), in-stream blended concentrations for Prairie Creek at Harrison Creek and at the Park Boundary are given in Tables 41 through 44 (worst treated water data). For each parameter, any concentrations exceeding the objectives (as determined by Hatfield Consultants) are shown in bold type.

CZN's water management strategy attempts to minimize the seasonal variation in downstream concentrations by maximizing the storage of water in winter, and maximizing water treatment in summer. However, higher downstream concentrations are possible in winter if abnormally low flows occur in Prairie Creek. CZN proposed to voluntarily reduce the treatment and discharge of process water during such events, since treated process water is likely to contain higher parameter concentrations. A method has been developed to convert this voluntary approach into a Water Licence condition. The bottom of Table 20 shows a tabulation of normal monthly treated process water flows from the water management plan, and their ratio to mean and low flows in Prairie Creek. A creek water to treated process water ratio of 500:1 was selected as a proposed licence condition, that is, if low creek flows occurred, treated process water discharge would need to be reduced so that the ratio is always >500:1. Based on the recorded monthly low flows, treated water discharge would potentially need to be reduced from the planned rate over the period August-April. The adjusted rates are shown, as well as the differences between the planned and reduced rates. The differences were then converted to monthly volumes, the annual sum of which is 24,850 m³. In reality, low monthly flows have never occurred for every month over the August-April period, and are highly unlikely to. Nevertheless, the water balances in Tables 2-5 show that the cumulative increase in storage in the process water cell (Cell A) from October to April is 74,800 m³. Adding the 24,850 m³ sum brings this to 99, 650 m³, still within the 110,000 m³ Cell A storage limit with a 10% contingency. The in-stream concentrations for minimum creek flows in Tables 21 to 44 are based on the reduced process water treatment rates shown in Table 20, which are based on the 500:1 ratio.

For the 'Low Estimate', 'Best Estimate' and 'High K' mine flow scenarios, no parameter concentrations exceed objectives. For extreme mine flows ('High K + PCAA'), objectives are only exceeded during minimum creek flows in winter: ammonia, nitrate, sulphate and TDS January-April. As noted elsewhere, a low probability (5%) has been assigned for the possible occurrence of extreme mine flows. Secondly, extreme flows would imply a connection with the Prairie Creek alluvial aquifer, and therefore mine water quality should be considerably better than has been assumed. Consequently, the exceedences noted likely would not occur because the source concentrations would be lower. Nevertheless, regulatory instruments (such as load limits) will need to be considered to prevent such concentrations from occurring should extreme mine flows be encountered.

2010 data for Diavik's sewage treatment effluent indicate a total phosphorous (P) concentration of 2.86 mg/L (Anne Wilson, pers. comm.), compared to the 2009 number of 0.0414 mg/L. This value was substituted in Table 6 to assess potential in-stream concentrations. Results are given in Table 45. Results indicate that the 0.004 mg/L objective is approached during abnormally low creek flows in April for the 'Best Estimate' scenario, and is exceeded January-April during abnormally low creek flows for the 'High K' scenario. This demonstrates that elevated total phosphorous in sewage effluent could pose an issue if the 2010 Diavik effluent concentration were to occur and persist un-attenuated in discharge. However, elevated P concentrations are considered unlikely to persist un-attenuated after an extended period of water storage in the WSP. Nevertheless, monitoring of treatment efficiency and effluent and WSP water quality is required to verify this assumption

WATER LICENCE APPROACH

Table 46 provides a summary of selected discharge water quality for those treated process water and treated mine water combinations that produced the highest combined parameter concentrations. The following observations are made:

- For all parameters except ammonia and nitrate, the highest concentrations occur for the 'Low Estimate' mine flow scenario, because higher concentrations exist in treated process water which are diluted less by the lower mine flows;
- Ammonia and nitrate concentrations are highest for the 'High K' mine flow scenario, because higher concentrations exist in treated mine water;
- Concentrations for all parameters within a particular scenario do not vary significantly on a seasonal basis. This is largely because the treated process water discharge plan in combination with the 500:1 creek flow to process water limit proposed above reduce the loads discharged in winter.

Table 47 provides end-of-pipe concentrations, consisting of the limits in CZN's existing Water Licence, the Metal Mine Effluent Regulation (MMER) limits, and proposed limits for a new Water Licence for mine operations. The intent of the proposed limits is to avoid significant impacts, while maintaining operational flexibility and ensure that the EQC can reasonably and consistently be achieved.

Tables 48 through 59 show the in-stream water quality that would occur if parameter concentrations in discharges equal the proposed maximum average Water Licence limits. These concentrations also include the effect of the 500:1 creek flow to process water discharge condition proposed above. Comments are made according to mine water flow scenario:

Low Estimate: The in-stream concentration for selenium exceeds the objective during minimum flows in April, and concentrations for mercury and phosphorous exceed objectives during minimum flows December-April. Treated process water contains the higher concentrations of these parameters. No treated process water is discharged in February-March, and therefore the simulation is falsely indicating concentrations above objectives. The simulation essentially converts treated mine water concentrations to licence limits, and this is the reason for the excursions from objectives. However, note that no objectives are exceeded during mean creek flows.

Best Estimate: In-stream concentrations exceed objectives during minimum flows only, for lead and zinc March-April, selenium February-April, and mercury and phosphorous September-April. Again, treated process water contains the higher concentrations of all these parameters, and as the simulation essentially converts treated mine water concentrations to licence limits, there are excursions from objectives. Note again that no objectives are exceeded during mean creek flows.

High Estimate: In-stream concentrations exceed objectives during mean flows for mercury September-January, and phosphorous September-November. Objectives are exceeded during minimum flows for lead, sulphate and TDS February-April, selenium and zinc January-April, and mercury and phosphorous July-April. Treated process water contains the higher

concentrations of all these parameters, and therefore the simulation again falsely indicates excursions assuming treated mine water quality equals licence limits.

High Estimate + PCAA: In-stream concentrations exceed objectives for most parameters during mean and minimum flows over the winter months, and some for maximum flows. Concentrations for mercury and phosphorous exceed objectives year-round (low flows only). The exceptions are ammonia and nitrate. Ammonia only exceeds the objective during low flows January-April. As was noted above, the excursions are considered to be false because higher concentrations occur in treated process water, and treated mine water is assigned licence concentrations. The only parameter in mine water exceeding objectives is ammonia.

The traditional manner of discharge regulation (by the Mackenzie Valley Land and Water Board) is to set ‘end of pipe’ discharge limits for flow rate and parameter concentrations, also known as effluent quality criteria (EQC). The limits in conjunction effectively restrict concentration loadings entering the receiving environment. However, in the absence of seasonal variations in discharge limits, concentration loadings would potentially remain constant year round irrespective of the ability of the receiving environment to absorb them. This means that receiving water concentrations, after mixing of upstream flows with the discharge, would also vary seasonally. From the perspective of the aquatic environment, impacts will be minimized when downstream concentrations remain within an acceptable range and do not fluctuate substantially on a seasonal basis.

One approach considered was to propose a more stringent set of EQC for the winter period. However, this would mean restrictions on discharges even if flows were normal or higher than normal in Prairie Creek. The preference was for a simple, load-based solution, hence the adoption of the 500:1 creek to process water discharge condition as described above. This would require continuous monitoring of creek flows, and adjustment of process water treatment rate accordingly. This could be done by re-establishing the WSC flow station, and relaying creek water levels to the WTP control room in real-time using telemetry. The data would be converted to flows using an established relationship. Records would be kept for regulatory review. We believe this is a simple, verifiable approach without the complexity of considering the loads of individual parameters.

There were parameters in treated mine water that could potentially cause excursions above objectives in winter during low creek flows if extreme mine flows are encountered (High K + PCAA scenario). These include copper, ammonia, nitrate, sulphate and TDS. As noted, concentrations of these parameters in mine water are likely to be much lower if extreme flows occur. Regulatory assurance could be obtained by applying load-based limits to these parameters which only come into play if the assumed source concentrations occur in combination with the extreme flows. If this actually occurs, the project will bear the burden of having to employ additional management and/or water treatment approaches in order to meet licence conditions.

In Tables 48-59, there were excursions from objectives for all mine flow scenarios because treated mine water was assumed to have the quality of the proposed licence limits, when in reality the quality is considerably better. Additional regulatory instruments will need to be considered so that treated mine water quality is as expected and in-stream objectives are not exceeded. Options include a second set of EQC or load limits for mine water only. Another might be to specify that the in-stream objectives are not to be exceeded. However, the problem

with the latter approach is that the objectives might be exceeded due to natural causes beyond the control of the project.

In summary, the proposed Water Licence limits and 500:1 creek water to process water discharge restriction are considered to be appropriate for regulating site discharge and minimizing impacts. Additional regulatory instruments will be needed to address the potential for high discharge loads should extreme mine flows occur (load limits), and to regulate treated mine water quality so that it is significantly better than licence limits (load limits or a second set of EQC). The suitability of the proposed Water Licence limits and conditions would be subject to review based on the SNP program and reports, and on a suitable AEMP which would include an Environmental Effects Monitoring (EEM) program. It is suggested that this review be done annually after completion of annual reports, and adaptive management actions be considered at that time. Necessary changes to the Water Licence would occur with renewal every 5 years.

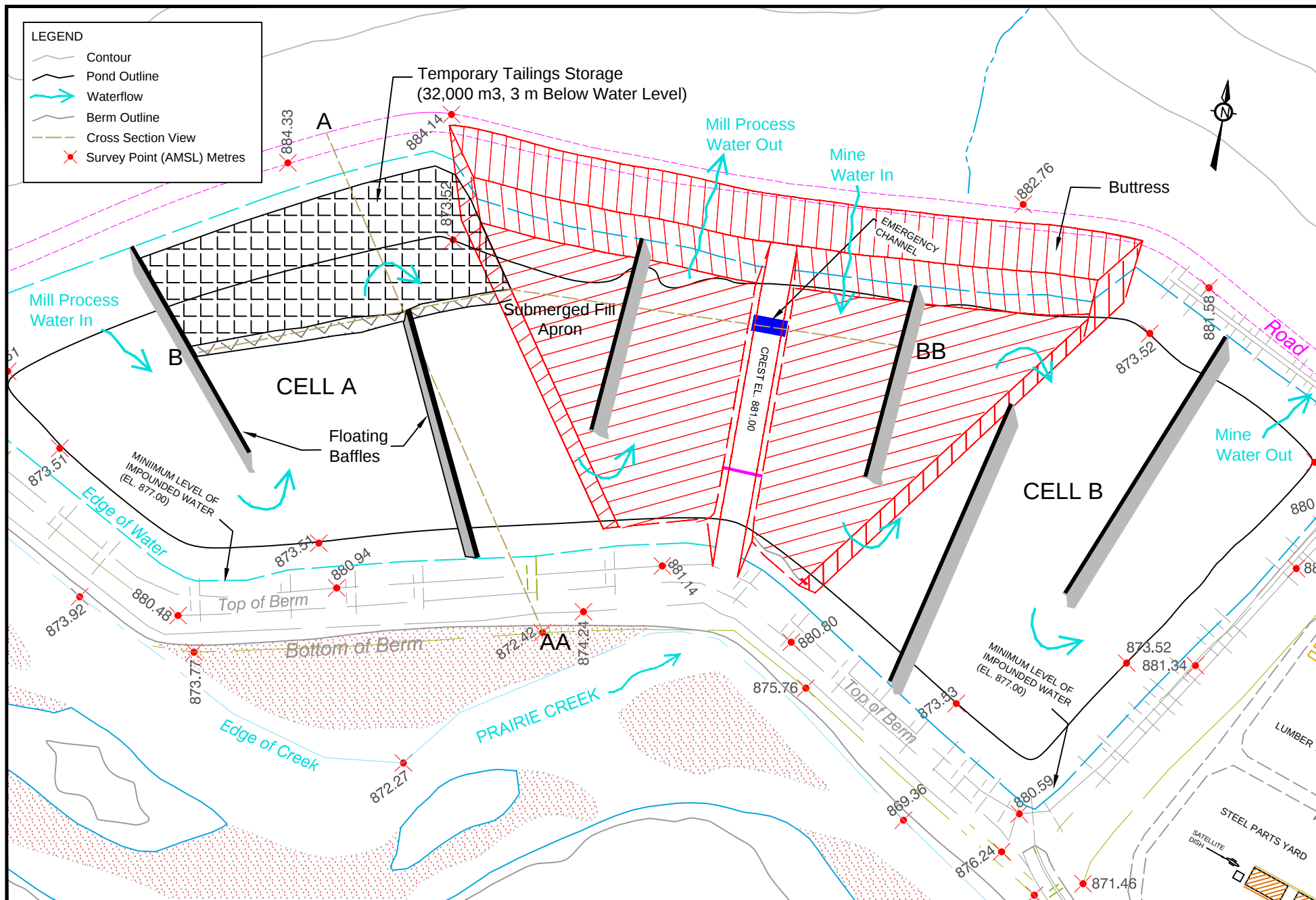
DISCHARGE MIXING

Releases from site will be discharged to Prairie Creek via an exfiltration trench. Northwest Hydraulics (NHC) have estimated the dilutions that will occur in the creek after vertical and transverse mixing (see their Appendix B attached to the CZN May 11, 2011 letter, data contained in Table 3). However, these dilutions alone do not convey the efficiency of mixing in terms of in-stream concentrations. Consequently, the dilutions were used to calculate in-stream parameter concentrations after vertical mixing only. The dilutions in NHC Table 3 are dilution factors, and were converted to dilution ratios by subtracting 1 from all numbers.

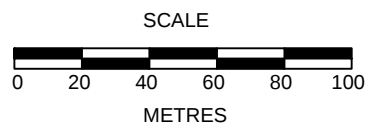
NHC calculated that vertical mixing will be complete downstream in a distance range of 1.6-30.6 m from the trench, depending on the scenario. Calculated concentrations based on 2011 treated water data are given in Tables 60 and 61. Calculated concentrations based on the highest treated water concentrations for both 2010 and 2011 testing are given in Table 62. Comparison with the 'totally mixed' in-stream concentrations in Tables 21-44 discussed above shows that the vertically mixed concentrations are only marginally higher than the totally mixed concentrations, and are likely well within the range of analytical variance.

Vertically mixed concentrations are well within the water quality objectives for all mine flow scenarios except extreme flows. During extreme flows, selenium, ammonia, nitrate, sulphate and TDS exceed the objectives during minimum flows in March and April. These results mirror the comparisons from Tables 21-44 above. As discussed above, reduced source concentrations will likely avoid these excursions, coupled with regulatory instruments for assurance that this is so.

Therefore, the initial dilution zone (IDZ) for effluent discharge is considered to be effectively defined by the distance range of vertical mixing. The distances noted by NHC for complete transverse mixing are considered to give a false sense of mixing efficiency because the in-stream vertically mixed concentrations confirm that mixing is essentially complete a short distance from the trench, and that in-stream concentrations at that point will be within the objectives.



Z	CANADIAN ZINC CORPORATION
Date:	Feb 2011
Drawn By:	C. Reeves
Scale:	As Shown
Drawing:	IR2_Fig_F1.dwg



PRAIRIE CREEK MINE

FIGURE 1:
WATER STORAGE POND

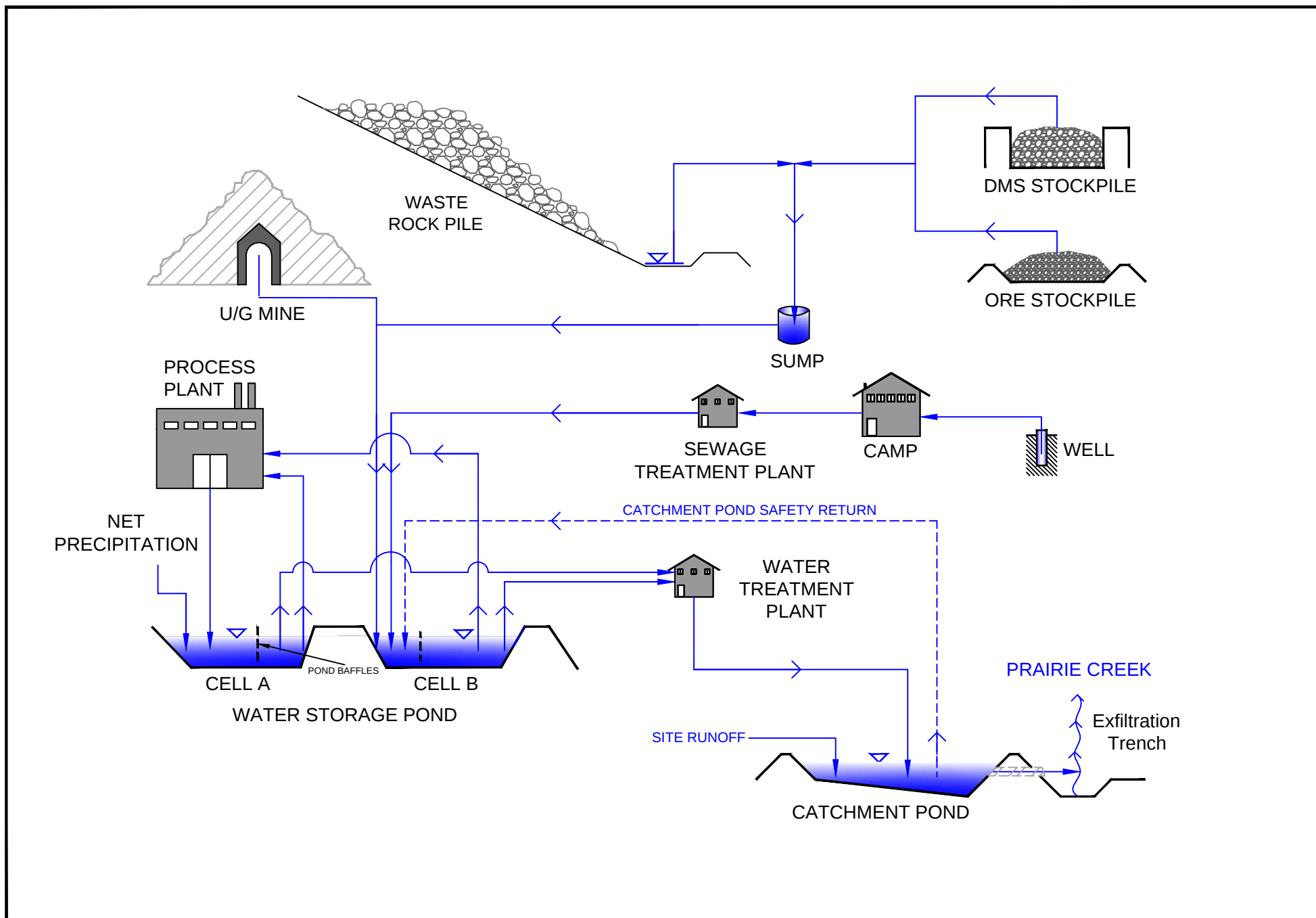


Table 1: Predictions of Mine Inflow Rates for Active Mining (L/sec)

Scenario	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.	Estimated Probability of Occurrence (%)
Low Estimate (K Fault =1E-5 m/s)	15	15	15	15	21	32	47	38	31	29	25	20	25.2	10%
Best Estimate (Nm15Tr w/ K Fault = 5E-5 m/s)	15	15	15	15	41.3	61.7	90.3	74.3	60.5	55.3	25	20	40.7	70%
High Estimate (K Fault =1E-4 m/s)	15	15	15	15	83	123	181	149	121	111	25	20	72.7	15%
High Estimate with Vein Fault-PCAA Connection	100	100	100	150	207	207	207	207	207	207	150	100	162	5%

 flow reduced to account for limited recharge of HCAA during winter freeze-up

TABLE 2: SITE WATER FLOWS (LOW ESTIMATE) AND WSP WATER BALANCE

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
PROCESS WATER L/s													
Process Feed	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	22.8
Losses to solids	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Mill Effluent to WSP	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20
Cell A to WTP	1.0	0.0	0.0	1.5	9.5	11.5	11.5	11.5	10.0	5.0	2.5	1.5	5.5
MINE WATER L/s													
Mine Drainage to WSP	15.0	15.0	15.0	15.0	21.3	31.8	46.6	38.3	31.2	28.5	25.0	20.0	25.2
Process Feed	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	8.0
Cell B to WTP	4.5	2.0	2.0	3.0	35.0	35.0	35.0	35.0	30.0	22.0	11.5	6.5	18.5

WATER STORAGE POND WATER BALANCE													
Inflows (m³)	Process Water Cell (Cell A)												
Mill Effluent	53,568	48,384	53,568	51,840	53,568	51,840	53,568	53,568	51,840	53,568	51,840	53,568	630,720
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	54,797	49,613	54,660	53,205	55,752	54,980	58,210	57,391	54,980	56,162	53,478	54,797	658,025
Outflows (m³)													
Mill Process Feed	39,694	35,853	39,694	38,413	39,694	38,413	39,694	39,694	38,413	39,694	38,413	39,694	467,364
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
To WTP	2,678	0	0	3,888	25,445	29,808	30,802	30,802	25,920	13,392	6,480	4,018	173,232
Total	42,372	35,853	39,694	42,301	66,214	72,317	75,956	74,591	67,064	53,086	44,893	43,711	658,054
Difference (m³)	12,424	13,760	14,966	10,904	-10,461	-17,337	-17,747	-17,201	-12,084	3,076	8,585	11,085	-29
Cum. Diff. (m³)	12,424	26,185	41,151	52,055	41,593	24,256	6,510	-10,691	-22,775	-19,699	-11,114	-29	
Cum. Diff. Oct-Apr (m³)	12,424	13,760	14,966	10,904						3,076	8,585	11,085	74,801
Inflows (m³)	Mine Water Cell (Cell B)												
Mine Drainage	40,176	36,288	40,176	38,880	57,050	82,524	124,803	102,689	80,919	76,430	64,800	53,568	798,304
Sewage Water	1,004	907	1,004	972	1,004	972	1,004	1,004	972	1,004	972	1,004	11,826
Waste Rock Pile	0	0	0	0	6,756	2,045	3,023	2,489	2,045	0	0	0	16,358
Stockpiles	0	0	0	0	319	96	142	117	96	0	0	0	771
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	42,409	38,424	42,273	41,217	67,314	88,777	133,614	110,123	87,172	80,028	67,410	55,801	854,563
Outflows (m³)													
Process Feed	21,374	19,305	21,374	20,684	21,374	20,684	21,374	21,374	20,684	21,374	20,684	21,374	96
To WTP	12,053	4,838	5,357	7,776	93,744	90,720	93,744	93,744	77,760	58,925	29,808	17,410	585,878
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
Total	33,426	24,144	26,730	28,460	116,193	115,500	120,579	119,213	101,175	80,298	50,492	38,783	603,432
Difference (m³)	8,983	14,280	15,542	12,757	-48,879	-26,722	13,036	-9,090	-14,002	-270	16,918	17,018	-430
Cum. Diff. (m³)	8,983	23,263	38,805	51,562	2,683	-24,039	-11,004	-20,094	-34,096	-34,366	-17,448	-430	
Cum. Diff. Nov-Apr (m³)	8,983	14,280	15,542	12,757							16,918	17,018	85,498

Mine water treatment m ³	12,053	5,357	5,357	8,035	93,744	93,744	93,744	93,744	80,352	58,925	30,802	17,410	593,266
Process water treatment m ³	2,678	0	0	4,018	25,445	30,802	30,802	30,802	26,784	13,392	6,696	4,018	175,435
Treated mine water L/s	4.5	2	2	3	35	35	35	35	30	22	11.5	6.5	18.5
Treated process water L/s	1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5	5.5
Ditches L/s	0	0	0	2	6	15	15	15	15	0.5	0	0	5.7
Total discharge L/s	5.5	2	2	6.5	50.5	61.5	61.5	61.5	55	27.5	14	8	29.6
Ratio to process mill water	4.5			3.3	4.3	4.3	4.3	4.3	4.5	4.5	4.6	4.3	

Area of WSP=	107,500 m ²		Rock pile area			50,000 m ²		Sewage L/day			32,400		
Volume of WSP=	450,000 m ³		Stockpiles area			1,650 m ²							
PC Precip mm	22.9	22.9	20.3	25.4	40.6	58.4	86.4	71.1	58.4	48.3	30.5	22.9	508.0
PC Evap mm	0	0	0	0	20.0	76.2	101.6	76.2	50.8	0	0	0	324.8

FIGURE 3: SITE FLOWS - LOW ESTIMATE MINE FLOWS

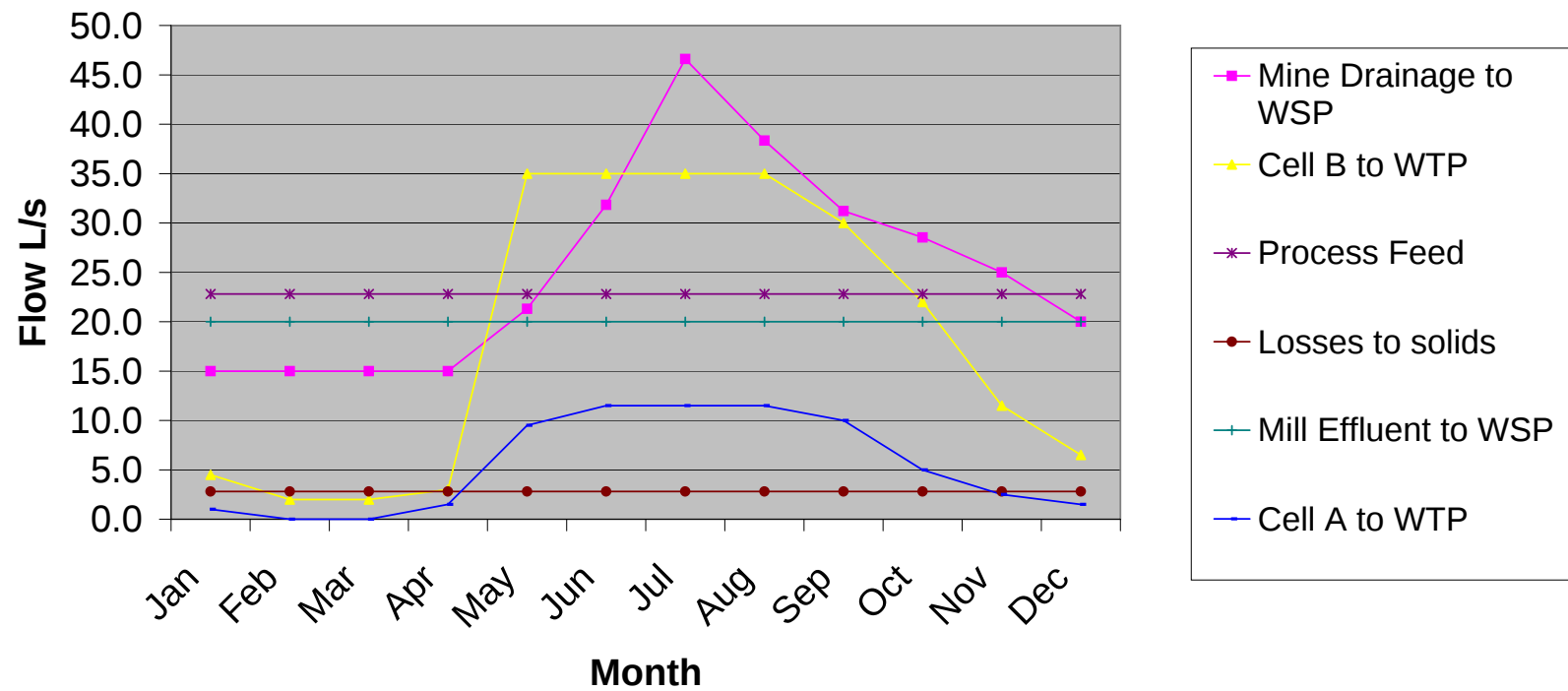


TABLE 3: SITE WATER FLOWS (BEST ESTIMATE) AND WSP WATER BALANCE

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
PROCESS WATER L/s													
Process Feed	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	22.8
Losses to solids	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Mill Effluent to WSP	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20
Cell A to WTP	1.0	0.0	0.0	1.5	9.5	11.5	11.5	11.5	10.0	5.0	2.5	1.5	5.5
MINE WATER L/s													
Mine Drainage to WSP	15.0	15.0	15.0	15.0	41.3	61.7	90.3	74.3	60.5	55.3	25.0	20.0	40.7
Process Feed	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Cell B to WTP	8.0	3.0	3.0	5.0	62.0	66.0	66.0	66.0	59.5	41.0	18.0	10.0	34.0

WATER STORAGE POND WATER BALANCE													
Inflows (m³)	Process Water Cell (Cell A)												
Mill Effluent	53,568	48,384	53,568	51,840	53,568	51,840	53,568	53,568	51,840	53,568	51,840	53,568	630,720
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	54,797	49,613	54,660	53,205	55,752	54,980	58,210	57,391	54,980	56,162	53,478	54,797	658,025
Outflows (m³)													
Mill Process Feed	39,694	35,853	39,694	38,413	39,694	38,413	39,694	39,694	38,413	39,694	38,413	39,694	467,364
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
To WTP	2,678	0	0	3,888	25,445	29,808	30,802	30,802	25,920	13,392	6,480	4,018	173,232
Total	42,372	35,853	39,694	42,301	66,214	72,317	75,956	74,591	67,064	53,086	44,893	43,711	658,054
Difference (m³)	12,424	13,760	14,966	10,904	-10,461	-17,337	-17,747	-17,201	-12,084	3,076	8,585	11,085	-29
Cum. Diff. (m³)	12,424	26,185	41,151	52,055	41,593	24,256	6,510	-10,691	-22,775	-19,699	-11,114	-29	
Cum. Diff. Oct-Apr (m³)	12,424	13,760	14,966	10,904						3,076	8,585	11,085	74,801
Inflows (m³)	Mine Water Cell (Cell B)												
Mine Drainage	40,176	36,288	40,176	38,880	110,618	159,926	241,860	199,005	156,816	148,116	64,800	53,568	1,290,228
Sewage Water	1,004	907	1,004	972	1,004	972	1,004	1,004	972	1,004	972	1,004	11,826
Waste Rock Pile	0	0	0	0	6,756	2,045	3,023	2,489	2,045	0	0	0	16,358
Stockpiles	0	0	0	0	319	96	142	117	96	0	0	0	771
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	42,409	38,424	42,273	41,217	120,882	166,180	250,671	206,439	163,069	151,714	67,410	55,801	1,346,488
Outflows (m³)													
Mill Process Feed	21,374	19,305	21,374	20,684	21,374	20,684	21,374	21,374	20,684	21,374	20,684	21,374	251,657
To WTP	21,427	7,258	8,035	12,960	166,061	171,072	176,774	176,774	154,224	109,814	46,656	26,784	1,077,840
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
Total	42,801	26,563	29,409	33,644	188,509	195,852	203,609	202,244	177,639	131,188	67,340	48,158	1,346,955
Difference (m³)	-392	11,861	12,864	7,573	-67,628	-29,672	47,062	4,195	-14,569	20,526	70	7,643	-467
Cum. Diff. (m³)	-392	11,469	24,333	31,906	-35,722	-65,394	-18,332	-14,137	-28,707	-8,181	-8,111	-467	
Cum. Diff. Jul-Mar (m³)	-392	11,861	12,864	7,573			47,062	4,195	-14,569	20,526	70	7,643	96,833

Mine water treatment m ³	21,427	8,035	8,035	13,392	166,061	176,774	176,774	176,774	159,365	109,814	48,211	26,784	1,091,448
Process water treatment m ³	2,678	0	0	4,018	25,445	30,802	30,802	30,802	26,784	13,392	6,696	4,018	175,435
Treated mine water L/s	8	3	3	5	62	66	66	66	59.5	41	18	10	34.0
Treated process water L/s	1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5	5.5
Ditches L/s	0	0	0	2	6	15	15	15	15	0.5	0	0	5.7
Total discharge L/s	9	3	3	8.5	77.5	92.5	92.5	92.5	84.5	46.5	20.5	11.5	45.1
Ratio to process water	8.0			4.7	7.2	7.0	7.0	7.0	7.5	8.3	7.2	6.7	

Area of WSP=	107,500 m ²					Rock pile area	50,000 m ²			Sewage L/day	32,400		
Volume of WSP=	450,000 m ³					Stockpiles area	1,650 m ²						
PC Precip mm	22.9	22.9	20.3	25.4	40.6	58.4	86.4	71.1	58.4	48.3	30.5	22.9	508.0
PC Evap mm	0	0	0	0	20.0	76.2	101.6	76.2	50.8	0	0	0	324.8

FIGURE 4: SITE FLOWS - BEST ESTIMATE MINE FLOWS

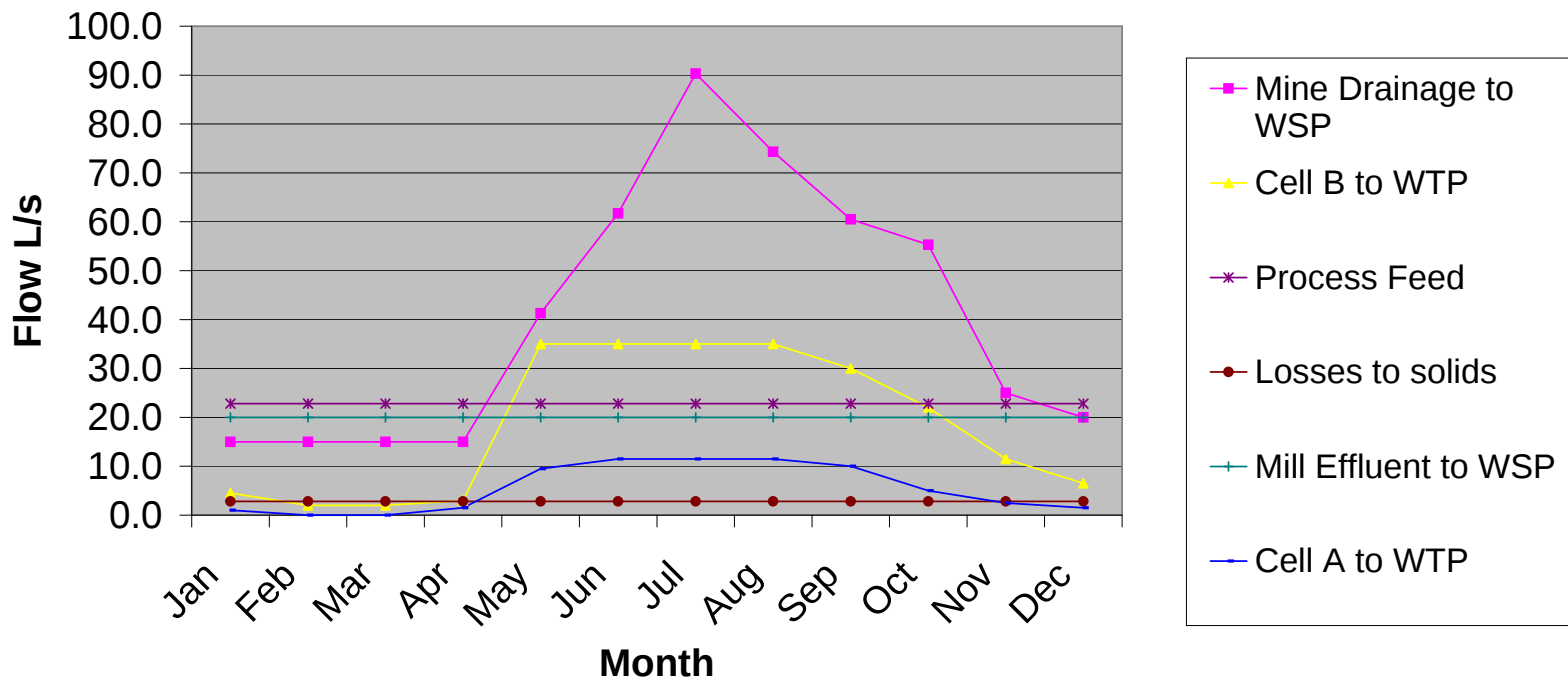


TABLE 4: SITE WATER FLOWS (HIGH K) AND WSP WATER BALANCE

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
PROCESS WATER L/s													
Process Feed	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	22.8
Losses to solids	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.18	-5.2
Mill Effluent to WSP	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20
Cell A to WTP	1.0	0.0	0.0	1.5	9.5	11.5	11.5	11.5	10.0	5.0	2.5	1.5	5.5
MINE WATER L/s													
Mine Drainage to WSP	15.0	15.0	15.0	15.0	82.6	123.4	180.6	148.6	121.0	110.6	25.0	20.0	72.7
Process Feed	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	8.0
Cell B to WTP	10.0	6.0	5.0	9.0	91.0	147.0	147.0	147.0	120.0	68.0	27.0	15.0	66.0

WATER STORAGE POND WATER BALANCE													
Inflows (m³)	Process Water Cell (Cell A)												
Mill Effluent	53,568	48,384	53,568	51,840	53,568	51,840	53,568	53,568	51,840	53,568	51,840	53,568	630,720
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	54,797	49,613	54,660	53,205	55,752	54,980	58,210	57,391	54,980	56,162	53,478	54,797	658,025
Outflows (m³)													
Mill Process Feed	39,694	35,853	39,694	38,413	39,694	38,413	39,694	39,694	38,413	39,694	38,413	39,694	467,364
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
To WTP	2,678	0	0	3,888	25,445	29,808	30,802	30,802	25,920	13,392	6,480	4,018	173,232
Total	42,372	35,853	39,694	42,301	66,214	72,317	75,956	74,591	67,064	53,086	44,893	43,711	658,054
Difference (m³)	12,424	13,760	14,966	10,904	-10,461	-17,337	-17,747	-17,201	-12,084	3,076	8,585	11,085	-29
Cum. Diff. (m³)	12,424	26,185	41,151	52,055	41,593	24,256	6,510	-10,691	-22,775	-19,699	-11,114	-29	
Cum. Diff. Oct-Mar (m³)	12,424	13,760	14,966	10,904						3,076	8,585	11,085	74,801
Inflows (m³)	Mine Water Cell (Cell B)												
Mine Drainage	40,176	36,288	40,176	38,880	221,236	319,853	483,719	398,010	313,632	296,231	64,800	53,568	2,306,569
Sewage Water	1,004	907	1,004	972	1,004	972	1,004	1,004	972	1,004	972	1,004	11,826
Waste Rock Pile	0	0	0	0	6,756	2,045	3,023	2,489	2,045	0	0	0	16,358
Stockpiles	0	0	0	0	319	96	142	117	96	0	0	0	771
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	42,409	38,424	42,273	41,217	231,500	326,106	492,530	405,444	319,885	299,829	67,410	55,801	2,362,829
Outflows (m³)													
Process Feed	21,374	19,305	21,374	20,684	21,374	20,684	21,374	21,374	20,684	21,374	20,684	21,374	251,657
To WTP	26,784	14,515	13,392	23,328	243,734	381,024	393,725	393,725	311,040	182,131	69,984	40,176	2,093,558
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
Total	48,158	33,820	34,766	44,012	266,183	405,804	420,559	419,194	334,455	203,505	90,668	61,550	2,362,674
Difference (m³)	-5,749	4,604	7,507	-2,795	-34,683	-79,698	71,971	-13,750	-14,569	96,325	-23,258	-5,749	155
Cum. Diff. (m³)	-5,749	-1,145	6,362	3,567	-31,116	-110,814	-38,843	-52,594	-67,163	29,161	5,904	155	
Cum. Diff. Oct-Mar (m³)	-5,749	4,604	7,507							96,325	-23,258	-5,749	73,680

Mine water treatment m ³	26,784	16,070	13,392	24,106	243,734	393,725	393,725	393,725	321,408	182,131	72,317	40,176	2,121,293
Process water treatment m ³	2,678	0	0	4,018	25,445	30,802	30,802	30,802	26,784	13,392	6,696	4,018	175,435
Treated mine water L/s	10	6	5	9	91	147	147	147	120	68	27	15	66.0
Treated process water L/s	1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5	5.5
Ditches L/s	0	0	0	2	6	12	18	12	18	0.5	0	0	5.7
Total discharge L/s	11	6	5	12.5	106.5	170.5	176.5	170.5	148	73.5	29.5	16.5	77.2
Ratio to process water	10.0			7.3	10.2	13.8	14.3	13.8	13.8	13.7	10.8	10.0	

Area of WSP=	107,500 m ²			Rock pile area	50,000 m ²			Sewage L/day	32,400				
Volume of WSP=	450,000 m ³			Stockpiles area	1,650 m ²								
PC Precip mm	22.9	22.9	20.3	25.4	40.6	58.4	86.4	71.1	58.4	48.3	30.5	22.9	508.0
PC Evap mm	0	0	0	0	20.0	76.2	101.6	76.2	50.8	0	0	0	324.8

FIGURE 5: SITE FLOWS - HIGH K MINE FLOWS

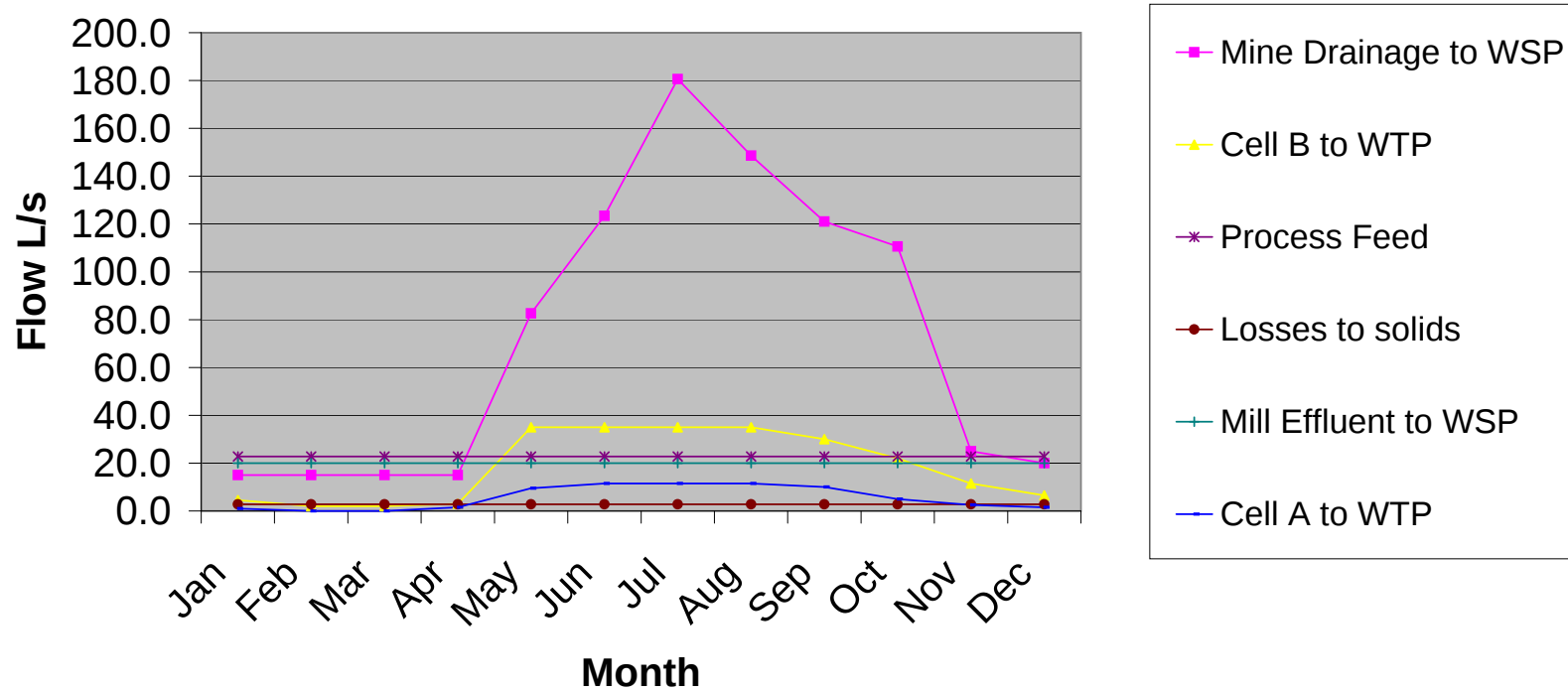


TABLE 5: SITE WATER FLOWS (HIGH K + PCAA) AND WSP WATER BALANCE

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
PROCESS WATER L/s													
Process Feed	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	14.82	22.8
Losses to solids	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Mill Effluent to WSP	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20
Cell A to WTP	1.0	0.0	0.0	1.5	9.5	11.5	11.5	11.5	10.0	5.0	2.5	1.5	5.5
MINE WATER L/s													
Mine Drainage to WSP	100.0	100.0	100.0	150.0	207.0	207.0	207.0	207.0	207.0	207.0	150.0	100.0	161.8
Process Feed	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	7.98	8.0
Cell B to WTP	93.0	86.0	71.0	133.5	210.0	210.0	210.0	206.0	205.0	200.0	143.0	93.0	155.0

WATER STORAGE POND WATER BALANCE													
Inflows (m³)	Process Water Cell (Cell A)												
Mill Effluent	53,568	48,384	53,568	51,840	53,568	51,840	53,568	53,568	51,840	53,568	51,840	53,568	630,720
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	54,797	49,613	54,660	53,205	55,752	54,980	58,210	57,391	54,980	56,162	53,478	54,797	658,025
Outflows (m³)	Mine Water Cell (Cell B)												
Mill Process Feed	39,694	35,853	39,694	38,413	39,694	38,413	39,694	39,694	38,413	39,694	38,413	39,694	467,364
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
To WTP	2,678	0	0	3,888	25,445	29,808	30,802	30,802	25,920	13,392	6,480	4,018	173,232
Total	42,372	35,853	39,694	42,301	66,214	72,317	75,956	74,591	67,064	53,086	44,893	43,711	658,054
Difference (m³)	12,424	13,760	14,966	10,904	-10,461	-17,337	-17,747	-17,201	-12,084	3,076	8,585	11,085	-29
Cum. Diff. (m³)	12,424	26,185	41,151	52,055	41,593	24,256	6,510	-10,691	-22,775	-19,699	-11,114	-29	
Cum. Diff. Oct-Apr (m³)	12,424	13,760	14,966	10,904						3,076	8,585	11,085	74,801
Inflows (m³)	Mine Water Cell (Cell B)												
Mine Drainage	267,840	241,920	267,840	388,800	554,429	536,544	554,429	554,429	536,544	554,429	388,800	267,840	5,113,843
Sewage Water	1,004	907	1,004	972	1,004	972	1,004	1,004	972	1,004	972	1,004	11,826
Waste Rock Pile	0	0	0	0	6,756	2,045	3,023	2,489	2,045	0	0	0	16,358
Stockpiles	0	0	0	0	319	96	142	117	96	0	0	0	771
Precipitation	1,229	1,229	1,092	1,365	2,184	3,140	4,642	3,823	3,140	2,594	1,638	1,229	27,305
Total	270,073	244,056	269,937	391,137	564,693	542,797	563,240	561,862	542,797	558,027	391,410	270,073	5,170,103
Outflows (m³)	Mine Water Cell (Cell B)												
Process Feed	21,374	19,305	21,374	20,684	21,374	20,684	21,374	21,374	20,684	21,374	20,684	21,374	251,657
To WTP	249,091	208,051	190,166	346,032	562,464	544,320	562,464	551,750	531,360	535,680	370,656	249,091	4,901,126
Evaporation	0	0	0	0	1,075	4,096	5,461	4,096	2,731	0	0	0	17,458
Total	270,465	227,356	211,540	366,716	584,913	569,100	589,299	577,220	554,775	557,054	391,340	270,465	5,170,242
Difference (m³)	-392	16,700	58,397	24,421	-20,220	-26,303	-26,058	-15,357	-11,977	974	70	-392	-139
Cum. Diff. (m³)	-392	16,308	74,704	99,125	78,905	52,603	26,544	11,187	-791	183	253	-139	
Cum. Diff. Oct-Apr (m³)	-392	16,700	58,397	24,421						974	70	-392	99,777

Mine water treatment m³	249,091	230,342	190,166	357,566	562,464	562,464	562,464	551,750	549,072	535,680	383,011	249,091	4,983,163
Process water treatment m³	2,678	0	0	4,018	25,445	30,802	30,802	30,802	26,784	13,392	6,696	4,018	175,435
Treated mine water L/s	93	86	71	133.5	210	210	210	206	205	200	143	93	155.0
Treated process water L/s	1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5	5.5
Ditches L/s	0	0	0	2	6	12	18	12	18	0.5	0	0	5.7
Total discharge L/s	94	86	71	137	225.5	233.5	239.5	229.5	233	205.5	145.5	94.5	166.2
Ratio to process water	93.0			90.3	22.7	19.3	19.8	19.0	22.3	40.1	57.2	62.0	

Area of WSP=	107,500 m²					50,000 m²							
Volume of WSP=	450,000 m³					1,650 m²							
PC Precip mm	22.9	22.9	20.3	25.4	40.6	58.4	86.4	71.1	58.4	48.3	30.5	22.9	508.0
PC Evap mm	0	0	0	0	20.0	76.2	101.6	76.2	50.8	0	0	0	324.8

FIGURE 6: SITE FLOWS - HIGH K + PCAA MINE FLOWS

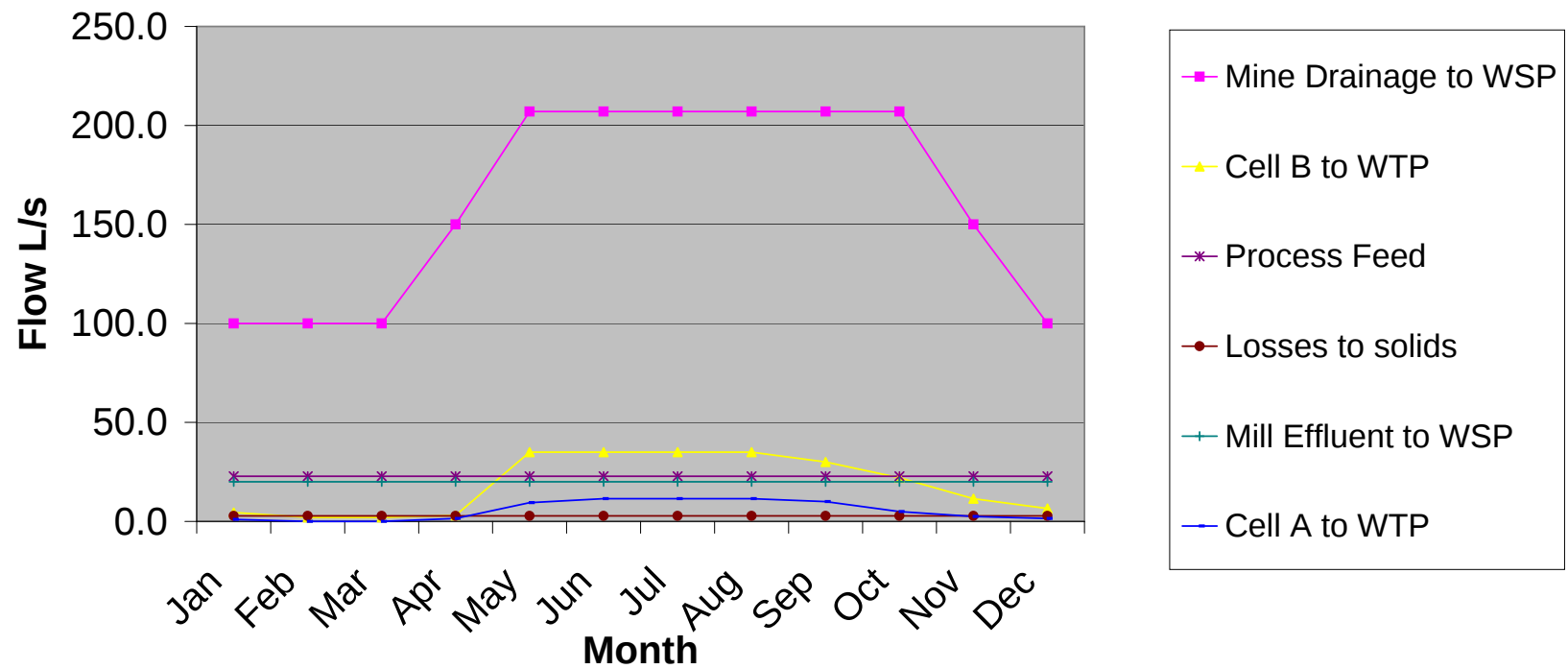


TABLE 6: TREATED WATER AND DITCH WATER QUALITY

Source Quality mg/L	Total Metals										
	Ag	As	Cd	Cu	Fe	Hg	Pb	Sb	Se	Zn	Na
Treated Mine Water	0.00001	0.0002	0.00004	0.0007	0.021	0.00001	0.0017	0.0253	0.0028	0.0025	1.54
Treated Mill Water	0.0007	0.009	0.0243	0.071	5.4	0.0019	0.304	0.119	0.01	1.35	1890
Camp Ditch	0.00005	0.0008	0.00035	0.0022	0.044	0.000028	0.0232	0.0022	0.0024	0.053	3.3
Upstream Prairie Creek	0.000029	0.00011	0.00003	0.00026	0.010	0.00002	0.00001	0.00011	0.00115	0.00333	
CCME/Other	0.0001	0.005	0.00038	0.00517	0.3	0.000026	0.007	0.02	0.001	0.035	
Site Specific RCA Values	0.000103	0.00056	0.000172	0.00253	0.229	0.000034	0.00113	0.000605	0.00222	0.02265	
Source Quality mg/L	Dissolved Metals										
	Ag	As	Cd	Cu	Fe	Hg	Pb	Sb	Se	Zn	Na
Treated Mine Water	0.00001	0.0002	0.00005	0.0045	0.008	0.00002	0.0018	0.025	0.0032	0.0025	1.68
Treated Mill Water	0.00072	0.0082	0.0226	0.0796	2.62	0.00028	0.252	0.116	0.0101	1.43	2260
Camp Ditch	0.00001	0.0002	0.00004	0.0004	0.0025	0.000015	0.0005	0.0016	0.0025	0.006	2.95
Upstream Prairie Creek											
Site Specific RCA Values											
Source Quality mg/L	NH ³ N	NO ³ N	NO ² N	Tot. P	Ortho P	SO ⁴	TDS	TSS	Hardness	pH	
Treated Mine Water	0.043	1	0.25	0.00334	0.0025	470	700	2	576	9.09	
Treated Mill Water	0.29	1	0.25	0.230	0.025	4500	6100	26	470	8.91	
Camp Ditch	0.054	0.419	0.001	0.005	0.0025	110	380	2	378	7.96	
Upstream Prairie Creek	0.005	0.15	0.08	0.002		68.0	269				
Diavik U/G Drainage	0.69	5.354	0.013								
Diavik Sewage Effluent	0.0097	5.210		0.0414	<0.001			12			
Wendigo Sewage Effluent	<0.05							14			
CCME	0.409	2.9	0.06	0.004		100					
Site Specific RCA Values	0.013	0.23	1.03	0.0034		200	413				

TABLE 7: WATER QUALITY OF BLENDED DISCHARGE - 2011 TREATED WATER, LOW ESTIMATE MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			4.5	2	2	3	35	35	35	35	30	22	11.5	6.5
Treated process water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s			5.5	2	2	6.5	50.5	61.5	61.5	61.5	55	27.5	14	8
Combined Water Quality mg/L	Total Metals	Ag	0.00014	0.00001	0.00001	0.00018	0.00014	0.00015	0.00015	0.00015	0.00015	0.00014	0.00013	0.00014
		As	0.00180	0.00020	0.00020	0.00242	0.00193	0.00199	0.00199	0.00199	0.00196	0.00181	0.00177	0.00185
		Cd	0.00445	0.00004	0.00004	0.00573	0.00464	0.00465	0.00465	0.00465	0.00454	0.00446	0.00437	0.00459
		Cu	0.01348	0.00070	0.00070	0.01738	0.01410	0.01421	0.01421	0.01421	0.01389	0.01351	0.01325	0.01388
		Fe	0.999	0.021	0.021	1.269	1.036	1.032	1.032	1.032	1.005	0.999	0.982	1.030
		Hg	0.00035	0.00001	0.00001	0.00045	0.00037	0.00037	0.00037	0.00037	0.00036	0.00035	0.00035	0.00036
		Pb	0.05666	0.00170	0.00170	0.07808	0.06112	0.06347	0.06347	0.06347	0.06253	0.05705	0.05568	0.05838
		Sb	0.0423	0.0253	0.0253	0.0391	0.0399	0.0367	0.0367	0.0367	0.0354	0.0419	0.0420	0.0429
		Se	0.00411	0.00280	0.00280	0.00434	0.00411	0.00405	0.00405	0.00405	0.00400	0.00410	0.00409	0.00415
		Zn	0.2475	0.0025	0.0025	0.3290	0.2620	0.2668	0.2668	0.2668	0.2613	0.2484	0.2431	0.2552
	Dissolved Metals	Na	345	2	2	438	357	355	355	355	345	345	339	356
		Ag	0.00014	0.00001	0.00001	0.00017	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014
		As	0.00165	0.00020	0.00020	0.00205	0.00170	0.00170	0.00170	0.00170	0.00165	0.00165	0.00163	0.00170
		Cd	0.00415	0.00005	0.00005	0.00525	0.00429	0.00426	0.00426	0.00426	0.00415	0.00415	0.00408	0.00428
		Cu	0.01815	0.00450	0.00450	0.02057	0.01814	0.01754	0.01754	0.01754	0.01704	0.01808	0.01791	0.01858
		Fe	0.483	0.008	0.008	0.609	0.499	0.495	0.495	0.495	0.481	0.483	0.474	0.498
		Hg	0.00007	0.00002	0.00002	0.00008	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
		Pb	0.04729	0.00180	0.00180	0.05914	0.04871	0.04827	0.04827	0.04827	0.04694	0.04727	0.04648	0.04871
		Sb	0.0415	0.0250	0.0250	0.0388	0.0393	0.0363	0.0363	0.0363	0.0352	0.0411	0.0413	0.0421
		Se	0.00445	0.00320	0.00320	0.00458	0.00441	0.00432	0.00432	0.00432	0.00426	0.00444	0.00443	0.00449
		Zn	0.2620	0.0025	0.0025	0.3330	0.2715	0.2703	0.2703	0.2703	0.2630	0.2621	0.2574	0.2702
		Na	412	2	2	523	427	424	424	424	413	412	405	425
	Other Parameters	NH ³ N	0.617	0.690	0.690	0.402	0.539	0.460	0.460	0.460	0.444	0.606	0.619	0.615
		NO ³ N	4.562	5.354	5.354	2.831	3.949	3.336	3.336	3.336	3.216	4.473	4.576	4.538
		NO ² N	0.250	0.250	0.250	0.173	0.220	0.189	0.189	0.189	0.182	0.245	0.250	0.250
		Tot. P	0.044	0.003	0.003	0.056	0.046	0.046	0.046	0.046	0.045	0.044	0.044	0.046
		Ortho P	0.007	0.003	0.003	0.008	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
		SO ⁴	1203	470	470	1289	1185	1136	1136	1136	1105	1196	1190	1226
		TDS	1682	700	700	1848	1678	1632	1632	1632	1595	1676	1664	1713
		TSS	6	2	2	8	7	6	6	6	6	6	6	7
		Hardness	557	576	576	491	533	508	508	508	503	553	557	556
		pH	9.06	9.09	9.09	8.70	8.92	8.78	8.78	8.78	8.75	9.04	9.06	9.06

TABLE 8: WATER QUALITY OF BLENDED DISCHARGE - 2011 TREATED WATER, BEST ESTIMATE MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			8	3	3	5	62	66	66	66	59.5	41	18	10
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s			9	3	3	8.5	77.5	92.5	92.5	92.5	84.5	46.5	20.5	11.5
Combined Water Quality mg/L	Total Metals	Ag	0.00009	0.00001	0.00001	0.00014	0.00010	0.00010	0.00010	0.00010	0.00010	0.00008	0.00009	0.00010
		As	0.00118	0.00020	0.00020	0.00189	0.00133	0.00139	0.00139	0.00139	0.00135	0.00115	0.00127	0.00135
		Cd	0.00274	0.00004	0.00004	0.00439	0.00304	0.00311	0.00311	0.00311	0.00297	0.00265	0.00300	0.00320
		Cu	0.00851	0.00070	0.00070	0.01346	0.00943	0.00968	0.00968	0.00968	0.00929	0.00828	0.00927	0.00987
		Fe	0.619	0.021	0.021	0.976	0.682	0.693	0.693	0.693	0.662	0.600	0.677	0.723
		Hg	0.00022	0.00001	0.00001	0.00035	0.00024	0.00025	0.00025	0.00025	0.00024	0.00021	0.00024	0.00026
		Pb	0.03529	0.00170	0.00170	0.06011	0.04042	0.04277	0.04277	0.04277	0.04129	0.03444	0.03857	0.04113
		Sb	0.0357	0.0253	0.0253	0.0359	0.0348	0.0328	0.0328	0.0328	0.0319	0.0351	0.0367	0.0375
		Se	0.00360	0.00280	0.00280	0.00398	0.00365	0.00363	0.00363	0.00363	0.00358	0.00357	0.00368	0.00374
		Zn	0.1522	0.0025	0.0025	0.2522	0.1716	0.1782	0.1782	0.1782	0.1709	0.1479	0.1668	0.1783
	Na	211	2	2	335	233	237	237	237	225	205	232	248	
	Dissolved Metals	Ag	0.00009	0.00001	0.00001	0.00014	0.00010	0.00010	0.00010	0.00010	0.00009	0.00009	0.00010	0.00010
		As	0.00109	0.00020	0.00020	0.00161	0.00118	0.00119	0.00119	0.00119	0.00115	0.00106	0.00118	0.00124
		Cd	0.00256	0.00005	0.00005	0.00403	0.00281	0.00285	0.00285	0.00285	0.00272	0.00247	0.00280	0.00299
		Cu	0.01284	0.00450	0.00450	0.01679	0.01339	0.01317	0.01317	0.01317	0.01266	0.01253	0.01366	0.01430
		Fe	0.298	0.008	0.008	0.468	0.328	0.332	0.332	0.332	0.316	0.289	0.327	0.349
		Hg	0.00005	0.00002	0.00002	0.00006	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
		Pb	0.02960	0.00180	0.00180	0.04565	0.03237	0.03270	0.03270	0.03270	0.03118	0.02869	0.03231	0.03443
		Sb	0.0351	0.0250	0.0250	0.0356	0.0343	0.0325	0.0325	0.0325	0.0316	0.0345	0.0361	0.0369
		Se	0.00397	0.00320	0.00320	0.00425	0.00399	0.00394	0.00394	0.00394	0.00389	0.00393	0.00404	0.00410
		Zn	0.1611	0.0025	0.0025	0.2552	0.1778	0.1805	0.1805	0.1805	0.1721	0.1560	0.1766	0.1887
	Na	253	2	2	401	279	283	283	283	269	245	277	296	
	Other Parameters	NH ³ N	0.646	0.690	0.690	0.470	0.592	0.537	0.537	0.537	0.530	0.640	0.641	0.638
		NO ³ N	4.870	5.354	5.354	3.424	4.438	4.012	4.012	4.012	3.963	4.833	4.823	4.786
		NO ² N	0.250	0.250	0.250	0.191	0.231	0.210	0.210	0.210	0.206	0.247	0.250	0.250
		Tot. P	0.028	0.003	0.003	0.044	0.031	0.032	0.032	0.032	0.030	0.027	0.031	0.033
		Ortho P	0.005	0.003	0.003	0.006	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
		SO ⁴	918	470	470	1096	936	913	913	913	883	899	961	996
		TDS	1300	700	700	1578	1337	1319	1319	1319	1282	1277	1359	1404
		TSS	5	2	2	6	5	5	5	5	5	5	5	5
		Hardness	564	576	576	511	548	531	531	531	528	562	563	562
		pH	9.07	9.09	9.09	8.79	8.98	8.88	8.88	8.88	8.87	9.06	9.07	9.07
mg/sec	Load	Cu	0.077	0.002	0.002	0.114	0.731	0.896	0.896	0.896	0.785	0.385	0.190	0.114
		NH ³ N	5.8	2.1	2.1	4.0	45.9	49.7	49.7	49.7	44.8	29.8	13.1	7.3
		NO ³ N	43.8	16.1	16.1	29.1	344.0	371.1	371.1	371.1	334.8	224.7	98.9	55.0
		SO ⁴	8260	1410	1410	9320	72550	84420	84420	84420	74615	41825	19710	11450
		TDS	11700	2100	2100	13410	103630	122050	122050	122050	108350	59390	27850	16150

TABLE 9: WATER QUALITY OF BLENDED DISCHARGE - 2011 TREATED WATER, HIGH K MINE FLOWS

Source Flow		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s		10	6	5	9	91	147	147	147	120	68	27	15
Treated mill water L/s		1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s		0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s		11	6	5	12.5	106.5	170.5	176.5	170.5	148	73.5	29.5	16.5
Combined Water Quality mg/L	Total Metals	Ag	0.00007	0.00001	0.00001	0.00010	0.00007	0.00006	0.00006	0.00006	0.00006	0.00007	0.00007
		As	0.00100	0.00020	0.00020	0.00135	0.00102	0.00084	0.00083	0.00084	0.00087	0.00080	0.00095
		Cd	0.00225	0.00004	0.00004	0.00300	0.00222	0.00170	0.00165	0.00170	0.00172	0.00169	0.00210
		Cu	0.00709	0.00070	0.00070	0.00938	0.00706	0.00555	0.00543	0.00555	0.00563	0.00549	0.00666
		Fe	0.510	0.021	0.021	0.670	0.502	0.385	0.374	0.385	0.387	0.387	0.477
		Hg	0.00018	0.00001	0.00001	0.00024	0.00018	0.00014	0.00013	0.00014	0.00014	0.00014	0.00017
		Pb	0.02918	0.00170	0.00170	0.04142	0.02988	0.02360	0.02359	0.02360	0.02474	0.02241	0.02732
		Sb	0.0338	0.0253	0.0253	0.0325	0.0322	0.0298	0.0288	0.0298	0.0286	0.0315	0.0332
		Se	0.00345	0.00280	0.00280	0.00360	0.00342	0.00326	0.00323	0.00326	0.00324	0.00329	0.00341
		Zn	0.1250	0.0025	0.0025	0.1723	0.1255	0.0969	0.0954	0.0969	0.0997	0.0945	0.1167
		Na	173	2	2	228	170	129	125	129	129	130	162
	Dissolved Metals	Ag	0.00007	0.00001	0.00001	0.00010	0.00007	0.00006	0.00006	0.00006	0.00006	0.00007	0.00007
		As	0.00093	0.00020	0.00020	0.00116	0.00091	0.00074	0.00072	0.00074	0.00074	0.00074	0.00088
		Cd	0.00210	0.00005	0.00005	0.00275	0.00206	0.00157	0.00152	0.00157	0.00157	0.00158	0.00196
		Cu	0.01133	0.00450	0.00450	0.01286	0.01097	0.00928	0.00898	0.00928	0.00908	0.00958	0.01086
		Fe	0.245	0.008	0.008	0.321	0.241	0.184	0.178	0.184	0.184	0.186	0.229
		Hg	0.00004	0.00002	0.00002	0.00005	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
		Pb	0.02455	0.00180	0.00180	0.03162	0.02405	0.01858	0.01797	0.01858	0.01855	0.01881	0.02300
		Sb	0.0333	0.0250	0.0250	0.0322	0.0318	0.0295	0.0285	0.0295	0.0283	0.0310	0.0327
		Se	0.00383	0.00320	0.00320	0.00392	0.00378	0.00362	0.00358	0.00362	0.00358	0.00366	0.00378
		Zn	0.1323	0.0025	0.0025	0.1744	0.1300	0.0990	0.0959	0.0990	0.0994	0.0996	0.1235
		Na	207	2	2	273	203	154	149	154	154	155	193
	Other Parameters	NH ³ N	0.654	0.690	0.690	0.540	0.618	0.618	0.599	0.618	0.586	0.658	0.656
		NO ³ N	4.958	5.354	5.354	4.042	4.687	4.713	4.567	4.713	4.460	5.024	4.985
		NO ² N	0.250	0.250	0.250	0.210	0.236	0.232	0.225	0.232	0.220	0.248	0.250
		Tot. P	0.024	0.003	0.003	0.031	0.023	0.018	0.018	0.018	0.019	0.018	0.022
		Ortho P	0.005	0.003	0.003	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.005
		SO ⁴	836	470	470	896	809	716	696	716	699	742	812
		TDS	1191	700	700	1297	1164	1042	1019	1042	1026	1065	1158
		TSS	4	2	2	5	4	4	4	4	4	4	4
		Hardness	566	576	576	532	555	555	549	555	545	567	567
		pH	9.07	9.09	9.09	8.89	9.01	9.00	8.96	9.00	8.94	9.07	9.07
mg/sec	Load	Se	0.038	0.017	0.014	0.045	0.364	0.555	0.570	0.555	0.479	0.242	0.101
		NH ³ N	7.2	4.1	3.5	6.8	65.9	105.4	105.7	105.4	86.7	48.4	19.4
		NO ³ N	54.5	32.1	26.8	50.5	499.2	803.5	806.1	803.5	660.0	369.3	147.1
		SO ⁴	9200	2820	2350	11200	86180	122160	122820	122160	103380	54515	23940
		TDS	13100	4200	3500	16210	123930	177610	179890	177610	151840	78290	34150

TABLE 10: WATER QUALITY OF BLENDED DISCHARGE - 2011 TREATED WATER, HIGH K + PCAA MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			93	86	71	133.5	210	210	210	206	205	200	143	93
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s			94	86	71	137	225.5	233.5	239.5	229.5	233	205.5	145.5	94.5
Combined Water Quality mg/L	Total Metals	Ag	0.00002	0.00001	0.00001	0.00002	0.00004	0.00005	0.00005	0.00005	0.00004	0.00003	0.00002	0.00002
		As	0.00029	0.00020	0.00020	0.00031	0.00059	0.00066	0.00067	0.00067	0.00062	0.00042	0.00035	0.00034
		Cd	0.00030	0.00004	0.00004	0.00031	0.00107	0.00125	0.00123	0.00127	0.00111	0.00063	0.00046	0.00043
		Cu	0.00145	0.00070	0.00070	0.00149	0.00370	0.00424	0.00419	0.00430	0.00383	0.00241	0.00191	0.00182
		Fe	0.078	0.021	0.021	0.080	0.248	0.287	0.281	0.292	0.254	0.152	0.113	0.106
		Hg	0.00003	0.00001	0.00001	0.00003	0.00009	0.00010	0.00010	0.00011	0.00009	0.00006	0.00004	0.00004
		Pb	0.00492	0.00170	0.00170	0.00532	0.01501	0.01769	0.01783	0.01797	0.01634	0.00911	0.00689	0.00650
		Sb	0.0263	0.0253	0.0253	0.0260	0.0286	0.0286	0.0279	0.0287	0.0274	0.0275	0.0269	0.0268
		Se	0.00288	0.00280	0.00280	0.00287	0.00309	0.00313	0.00312	0.00314	0.00308	0.00297	0.00292	0.00291
		Zn	0.0168	0.0025	0.0025	0.0180	0.0606	0.0715	0.0710	0.0727	0.0642	0.0354	0.0257	0.0239
		Na	22	2	2	22	81	95	92	96	83	47	34	32
	Other Parameters	NH ³ N	0.686	0.690	0.690	0.676	0.656	0.638	0.623	0.637	0.624	0.679	0.683	0.684
		NO ³ N	5.308	5.354	5.354	5.234	5.039	4.886	4.774	4.878	4.786	5.236	5.279	5.285
		NO ² N	0.250	0.250	0.250	0.246	0.243	0.237	0.231	0.237	0.231	0.249	0.250	0.250
		Tot. P	0.006	0.003	0.003	0.006	0.013	0.015	0.014	0.015	0.013	0.009	0.007	0.007
		Ortho P	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.003	0.003	0.003	0.003
		SO ⁴	513	470	470	509	630	650	636	653	615	567	539	534
		TDS	757	700	700	754	919	950	935	954	907	831	793	786
		TSS	2	2	2	2	3	3	3	3	3	3	2	2
		Hardness	575	576	576	572	566	561	556	560	556	573	574	574
pH	9.09	9.09	9.09	9.07	9.05	9.02	9.00	9.02	8.99	9.08	9.09	9.09		
mg/sec	Load	Se	0.270	0.241	0.199	0.394	0.697	0.732	0.746	0.721	0.717	0.611	0.425	0.275
		NH ³ N	64.5	59.3	49.0	92.7	148.0	148.9	149.2	146.1	145.3	139.5	99.4	64.6
		NO ³ N	498.9	460.4	380.1	717.1	1,136.3	1,140.8	1,143.4	1,119.4	1,115.1	1,076.0	768.1	499.4
		SO ⁴	48210	40420	33370	69715	142110	151770	152430	149890	143330	116555	78460	50460
		TDS	71200	60200	49700	103360	207230	221710	223990	218910	211340	170690	115350	74250

TABLE 11: 2010 AND 2011 UNTREATED AND TREATED WATER QUALITY COMPARISON

	Source Quality mg/L	Total Metals									
		Ag	As	Cd	Cu	Fe	Hg	Pb	Sb	Se	Zn
Mine Water	Untreated Sep 2010		0.0009	0.0208	0.0128	0.014	<0.00002	0.0006	0.0238	0.0028	4.25
	Untreated Jan 2011	0.00007	0.0139	0.0115	0.0905	7.4	0.00004	0.0125	0.0351	0.0029	1.53
	Treated Sep 2010	0.00001	0.0028	0.00001	0.0072	0.0025	0.00001	0.0001	0.0229	0.0033	0.017
	Treated Jan 2011	<0.00002	0.0002	0.00004	0.0007	0.021	<0.00002	0.0017	0.0253	0.0028	<0.005
Process Water	Untreated Sep 2010		0.509	0.0825	0.0032	0.147	0.00168	5.26	0.273	0.104	3.42
	Untreated Jan 2011	0.069	0.427	1.24	3.95	<0.5	0.888	30.8	0.647	0.116	2.74
	Treated Sep 2010	0.00004	0.0018	0.00262	0.0021	0.043	0.0020	0.0932	0.0112	0.039	0.039
	Treated Jan 2011	0.0007	0.009	0.02430	0.071	5.4	0.0019	0.304	0.119	0.010	1.35

Bold = Higher in 2010

TABLE 12: WATER QUALITY OF BLENDED DISCHARGE - 2010 TREATED WATER, LOW ESTIMATE MINE FLOWS

Source Flow		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s		4.5	2	2	3	35	35	35	35	30	22	11.5	6.5
Treated process water L/s		1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s		0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s		5.5	2	2	6.5	50.5	61.5	61.5	61.5	55	27.5	14	8
Combined Water Quality mg/L	Total Metals	Ag	0.00002	0.00001	0.00001	0.00003	0.00002	0.00003	0.00003	0.00003	0.00002	0.00002	0.00002
		As	0.00262	0.00280	0.00280	0.00195	0.00237	0.00213	0.00213	0.00213	0.00207	0.00258	0.00262
		Cd	0.00048	0.00001	0.00001	0.00072	0.00054	0.00058	0.00058	0.00058	0.00049	0.00048	0.00050
		Cu	0.00627	0.00720	0.00720	0.00448	0.00565	0.00503	0.00503	0.00503	0.00491	0.00618	0.00629
		Fe	0.010	0.003	0.003	0.025	0.015	0.020	0.020	0.020	0.021	0.010	0.010
		Hg	0.00038	0.00001	0.00001	0.00048	0.00039	0.00039	0.00039	0.00039	0.00038	0.00037	0.00039
		Pb	0.01703	0.00010	0.00010	0.02869	0.02036	0.02314	0.02314	0.02314	0.02333	0.01745	0.01756
		Sb	0.0208	0.0229	0.0229	0.0132	0.0180	0.0151	0.0151	0.0151	0.0145	0.0204	0.0207
		Se	0.00983	0.00330	0.00330	0.01131	0.00995	0.00979	0.00979	0.00979	0.00958	0.00981	0.00971
		Zn	0.0210	0.0170	0.0170	0.0332	0.0254	0.0299	0.0299	0.0299	0.0308	0.0217	0.0211

TABLE 13: WATER QUALITY OF BLENDED DISCHARGE - 2010 TREATED WATER, BEST ESTIMATE MINE FLOWS

Source Flow		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s		8	3	3	5	62	66	66	66	59.5	41	18	10
Treated mill water L/s		1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s		0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s		9	3	3	8.5	77.5	92.5	92.5	92.5	84.5	46.5	20.5	11.5
Combined Water Quality mg/L	Total Metals	Ag	0.00001	0.00001	0.00001	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001	0.00001
		As	0.00269	0.00280	0.00280	0.00215	0.00252	0.00235	0.00235	0.00235	0.00233	0.00267	0.00267
		Cd	0.00030	0.00001	0.00001	0.00055	0.00036	0.00039	0.00039	0.00039	0.00038	0.00029	0.00033
		Cu	0.00663	0.00720	0.00720	0.00512	0.00619	0.00576	0.00576	0.00576	0.00571	0.00660	0.00653
		Fe	0.007	0.003	0.003	0.019	0.011	0.014	0.014	0.014	0.015	0.007	0.008
		Hg	0.00024	0.00001	0.00001	0.00037	0.00026	0.00027	0.00027	0.00027	0.00025	0.00023	0.00026
		Pb	0.01044	0.00010	0.00010	0.02196	0.01330	0.01542	0.01542	0.01542	0.01522	0.01036	0.01224
		Sb	0.0216	0.0229	0.0229	0.0154	0.0197	0.0177	0.0177	0.0177	0.0175	0.0214	0.0214
		Se	0.00729	0.00330	0.00330	0.00942	0.00763	0.00762	0.00762	0.00762	0.00739	0.00715	0.00798
		Zn	0.0194	0.0170	0.0170	0.0294	0.0225	0.0256	0.0256	0.0256	0.0260	0.0198	0.0199

TABLE 14: WATER QUALITY OF BLENDED DISCHARGE - 2010 TREATED WATER, HIGH K MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			10	6	5	9	91	147	147	147	120	68	27	15
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s			11	6	5	12.5	106.5	170.5	176.5	170.5	148	73.5	29.5	16.5
Combined Water Quality mg/L	Total Metals	Ag	0.00001	0.00001	0.00001	0.00002	0.00001	0.00001	0.00002	0.00001	0.00002	0.00001	0.00001	0.00001
		As	0.00271	0.00280	0.00280	0.00236	0.00260	0.00259	0.00253	0.00259	0.00249	0.00272	0.00272	0.00271
		Cd	0.00025	0.00001	0.00001	0.00038	0.00026	0.00021	0.00021	0.00021	0.00023	0.00019	0.00023	0.00025
		Cu	0.00674	0.00720	0.00720	0.00579	0.00646	0.00650	0.00636	0.00650	0.00625	0.00682	0.00677	0.00674
		Fe	0.006	0.003	0.003	0.014	0.008	0.008	0.009	0.008	0.010	0.006	0.006	0.006
		Hg	0.00019	0.00001	0.00001	0.00026	0.00019	0.00015	0.00014	0.00015	0.00015	0.00015	0.00018	0.00019
		Pb	0.00856	0.00010	0.00010	0.01497	0.00971	0.00801	0.00852	0.00801	0.00920	0.00659	0.00799	0.00856
		Sb	0.0218	0.0229	0.0229	0.0178	0.0206	0.0205	0.0198	0.0205	0.0193	0.0219	0.0219	0.0218
		Se	0.00656	0.00330	0.00330	0.00746	0.00645	0.00566	0.00555	0.00566	0.00562	0.00574	0.00634	0.00656
		Zn	0.0190	0.0170	0.0170	0.0254	0.0210	0.0210	0.0221	0.0210	0.0229	0.0187	0.0189	0.0190

TABLE 15: WATER QUALITY OF BLENDED DISCHARGE - 2010 TREATED WATER, HIGH K + PCAA MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			93	86	71	133.5	210	210	210	206	205	200	143	93
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s			94	86	71	137	225.5	233.5	239.5	229.5	233	205.5	145.5	94.5
Combined Water Quality mg/L	Total Metals	Ag	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
		As	0.00279	0.00280	0.00280	0.00276	0.00270	0.00265	0.00260	0.00265	0.00260	0.00277	0.00278	0.00278
		Cd	0.00004	0.00001	0.00001	0.00004	0.00013	0.00016	0.00016	0.00016	0.00015	0.00007	0.00005	0.00005
		Cu	0.00715	0.00465	0.00563	0.00292	0.00685	0.00669	0.00658	0.00668	0.00659	0.00706	0.00711	0.00712
		Fe	0.003	0.003	0.003	0.004	0.005	0.007	0.008	0.007	0.007	0.004	0.003	0.003
		Hg	0.00003	0.00001	0.00001	0.00003	0.00010	0.00011	0.00011	0.00011	0.00010	0.00006	0.00004	0.00004
		Pb	0.00109	0.00010	0.00010	0.00146	0.00464	0.00587	0.00631	0.00597	0.00588	0.00242	0.00170	0.00158
		Sb	0.0228	0.0229	0.0229	0.0224	0.0218	0.0211	0.0206	0.0211	0.0206	0.0226	0.0227	0.0227
		Se	0.00368	0.00233	0.00282	0.00146	0.00479	0.00502	0.00496	0.00505	0.00477	0.00417	0.00392	0.00387
		Zn	0.0172	0.0170	0.0170	0.0178	0.0189	0.0199	0.0208	0.0200	0.0207	0.0176	0.0174	0.0173
mg/sec	Load	Cu	0.672	0.400	0.400	0.400	1.545	1.563	1.576	1.534	1.537	1.452	1.035	0.673
		Se	0.346	0.200	0.200	0.200	1.080	1.173	1.187	1.159	1.112	0.857	0.570	0.366

TABLE 16: WATER QUALITY OF BLENDED DISCHARGE - WORST TREATED WATER, LOW ESTIMATE MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			4.5	2	2	3	35	35	35	35	30	22	11.5	6.5
Treated process water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s			5.5	2	2	6.5	50.5	61.5	61.5	61.5	55	27.5	14	8
Combined Water Quality mg/L	Total Metals	As	0.00393	0.00280	0.00280	0.00362	0.00373	0.00347	0.00347	0.00347	0.00338	0.00389	0.00391	0.00396
		Cu	0.01880	0.00720	0.00720	0.02038	0.01861	0.01791	0.01791	0.01791	0.01744	0.01871	0.01859	0.01916
		Zn	0.2594	0.0170	0.0170	0.3357	0.2720	0.2750	0.2750	0.2750	0.2692	0.2600	0.2550	0.2669

TABLE 17: WATER QUALITY OF BLENDED DISCHARGE - WORST TREATED WATER, BEST ESTIMATE MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			8	3	3	5	62	66	66	66	59.5	41	18	10
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	15	15	15	15	0.5	0	0
Combined L/s			9	3	3	8.5	77.5	92.5	92.5	92.5	84.5	46.5	20.5	11.5
Combined Water Quality mg/L	Total Metals	As	0.00349	0.00280	0.00280	0.00342	0.00341	0.00325	0.00325	0.00325	0.00318	0.00345	0.00356	0.00361
		Cu	0.01429	0.00720	0.00720	0.01728	0.01463	0.01432	0.01432	0.01432	0.01386	0.01401	0.01498	0.01552
		Zn	0.1651	0.0170	0.0170	0.2607	0.1832	0.1886	0.1886	0.1886	0.1811	0.1607	0.1796	0.1909

TABLE 18: WATER QUALITY OF BLENDED DISCHARGE - WORST TREATED WATER, HIGH K MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			10	6	5	9	91	147	147	147	120	68	27	15
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s			11	6	5	12.5	106.5	170.5	176.5	170.5	148	73.5	29.5	16.5
Combined Water Quality mg/L	Total Metals	As	0.00336	0.00280	0.00280	0.00322	0.00324	0.00308	0.00300	0.00308	0.00298	0.00321	0.00333	0.00336
		Cu	0.01300	0.00720	0.00720	0.01406	0.01261	0.01115	0.01085	0.01115	0.01090	0.01151	0.01261	0.01300
		Zn	0.1382	0.0170	0.0170	0.1827	0.1379	0.1094	0.1075	0.1094	0.1114	0.1079	0.1300	0.1382

TABLE 19: WATER QUALITY OF BLENDED DISCHARGE - WORST TREATED WATER, HIGH K + PCAA MINE FLOWS

Source Flow			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Treated mine water L/s			93	86	71	133.5	210	210	210	206	205	200	143	93
Treated mill water L/s			1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5
Ditches L/s			0	0	0	2	6	12	18	12	18	0.5	0	0
Combined L/s			94	86	71	137	225.5	233.5	239.5	229.5	233	205.5	145.5	94.5
Combined Water Quality mg/L	Total Metals	As	0.00287	0.00280	0.00280	0.00284	0.00301	0.00300	0.00295	0.00301	0.00291	0.00295	0.00291	0.00290
		Cu	0.00788	0.00720	0.00720	0.00783	0.00975	0.01009	0.00989	0.01014	0.00955	0.00874	0.00830	0.00821
		Zn	0.0312	0.0170	0.0170	0.0321	0.0741	0.0845	0.0837	0.0857	0.0770	0.0495	0.0399	0.0382
mg/sec	Load	Cu	0.741	0.619	0.511	1.072	2.200	2.355	2.368	2.326	2.226	1.796	1.207	0.776

**TABLE 20: COMPUTED MEAN, LOW AND HIGH FLOWS
PRAIRIE CREEK AT HARRISON CREEK AND THE PARK BOUNDARY**

FLOWS AT STATIONS ON PRAIRIE CREEK (L/sec)

	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WSC Station	Mean	530	381	309	819	12,358	17,237	11,780	9,336	6,318	2,762	1,294	838
	Min	145	48	38	78	7,840	10,800	5,960	5,120	3,660	1,540	828	254
	Max	1,230	868	661	4,340	18,400	37,400	19,700	16,900	9,080	5,610	1,720	1,840
Prairie Ck at Harrison	Mean	540	388	315	835	12,608	17,587	12,019	9,526	6,446	2,818	1,320	855
	Min	148	49	39	80	7,999	11,019	6,081	5,224	3,734	1,571	845	259
	Max	1,255	886	674	4,428	18,774	38,160	20,100	17,243	9,264	5,724	1,755	1,877
Prairie Ck at Park Boundary	Mean	602	433	351	930	14,040	19,584	13,384	10,607	7,178	3,138	1,470	952
	Min	165	55	43	89	8,908	12,271	6,772	5,817	4,158	1,750	941	289
	Max	1,397	986	751	4,931	20,905	42,492	22,382	19,201	10,316	6,374	1,954	2,091

FLOWS AT STATIONS ON PRAIRIE CREEK (m³/sec)

	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WSC Station	Mean	0.530	0.381	0.309	0.819	12.358	17.237	11.780	9.336	6.318	2.762	1.294	0.838
	Min	0.145	0.048	0.038	0.078	7.840	10.800	5.960	5.120	3.660	1.540	0.828	0.254
	Max	1.230	0.868	0.661	4.340	18.400	37.400	19.700	16.900	9.080	5.610	1.720	1.840
Prairie Ck at Harrison	Mean	0.540	0.388	0.315	0.835	12.608	17.587	12.019	9.526	6.446	2.818	1.320	0.855
	Min	0.148	0.049	0.039	0.080	7.999	11.019	6.081	5.224	3.734	1.571	0.845	0.259
	Max	1.255	0.886	0.674	4.428	18.774	38.160	20.100	17.243	9.264	5.724	1.755	1.877
Prairie Ck at Park Boundary	Mean	0.602	0.433	0.351	0.930	14.040	19.584	13.384	10.607	7.178	3.138	1.470	0.952
	Min	0.165	0.055	0.043	0.089	8.908	12.271	6.772	5.817	4.158	1.750	0.941	0.289
	Max	1.397	0.986	0.751	4.931	20.905	42.492	22.382	19.201	10.316	6.374	1.954	2.091

TREATED PROCESS WATER TO PRAIRIE CREEK FLOW RATIO

	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Treated process water L/s		1	0	0	1.5	9.5	11.5	11.5	11.5	10	5	2.5	1.5	
Ratio to Mean PC@H Flow		540.3			556.7	1,327	1,529	1,045	828.33	644.58	563.7	527.9	570.1	
Ratio to Min PC@H Flow		147.9			53.06	842.02	958.2	528.79	454.26	373.43	314.3	337.9	172.8	
Treated PW L/s @ 500:1		0.3			0.2				10.4	7.5	3.1	1.7	0.5	
Difference L/s		0.7			1.3				1.1	2.5	1.9	0.8	1.0	
Difference m³		1,886			3,591				2,818	6,780	4,975	2,170	2,629	24,850

**TABLE 21: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, MAIN METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00005	0.00005	0.00006	0.00007	0.00007	0.00008	0.00007
	Min	0.00008	0.00003	0.00003	0.00008	0.00006	0.00006	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00005	0.00006	0.00005	0.00006	0.00005
Total Copper	Mean	0.00039	0.00026	0.00026	0.00039	0.00032	0.00031	0.00033	0.00035	0.00038	0.00039	0.00040	0.00039
	Min	0.00041	0.00028	0.00028	0.00045	0.00035	0.00034	0.00040	0.00041	0.00041	0.00041	0.00041	0.00041
	Max	0.00032	0.00026	0.00026	0.00029	0.00030	0.00028	0.00030	0.00031	0.00034	0.00032	0.00036	0.00032
Total Lead	Mean	0.00058	0.00002	0.00002	0.00061	0.00025	0.00023	0.00033	0.00042	0.00054	0.00056	0.00059	0.00055
	Min	0.00065	0.00008	0.00009	0.00119	0.00039	0.00036	0.00065	0.00069	0.00071	0.00064	0.00063	0.00064
	Max	0.00026	0.00001	0.00001	0.00012	0.00017	0.00011	0.00020	0.00024	0.00038	0.00028	0.00045	0.00026
Total Selenium	Mean	0.00118	0.00116	0.00116	0.00117	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00118	0.00118
	Min	0.00122	0.00121	0.00123	0.00125	0.00117	0.00117	0.00118	0.00118	0.00119	0.00119	0.00119	0.00121
	Max	0.00116	0.00115	0.00115	0.00115	0.00116	0.00115	0.00116	0.00116	0.00117	0.00116	0.00117	0.00116
Total Zinc	Mean	0.0058	0.0033	0.0033	0.0058	0.0044	0.0042	0.0047	0.0050	0.0055	0.0057	0.0058	0.0057
	Min	0.0059	0.0033	0.0033	0.0070	0.0050	0.0048	0.0060	0.0061	0.0062	0.0060	0.0060	0.0059
	Max	0.0044	0.0033	0.0033	0.0038	0.0040	0.0038	0.0041	0.0043	0.0049	0.0045	0.0052	0.0044
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00004	0.00005	0.00006	0.00006	0.00007	0.00007	0.00007
	Min	0.00007	0.00003	0.00003	0.00008	0.00006	0.00005	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00004	0.00005	0.00005	0.00006	0.00005
Total Copper	Mean	0.00038	0.00026	0.00026	0.00038	0.00031	0.00030	0.00032	0.00034	0.00036	0.00038	0.00038	0.00037
	Min	0.00040	0.00028	0.00028	0.00044	0.00034	0.00033	0.00039	0.00039	0.00040	0.00039	0.00039	0.00039
	Max	0.00031	0.00026	0.00026	0.00028	0.00029	0.00028	0.00030	0.00030	0.00033	0.00032	0.00035	0.00031
Total Lead	Mean	0.00052	0.00002	0.00002	0.00055	0.00023	0.00021	0.00030	0.00038	0.00049	0.00051	0.00054	0.00050
	Min	0.00059	0.00007	0.00008	0.00107	0.00035	0.00033	0.00058	0.00062	0.00064	0.00058	0.00057	0.00058
	Max	0.00023	0.00001	0.00001	0.00011	0.00016	0.00010	0.00018	0.00021	0.00034	0.00026	0.00041	0.00023
Total Selenium	Mean	0.00118	0.00116	0.00116	0.00117	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00118	0.00117
	Min	0.00121	0.00121	0.00122	0.00124	0.00117	0.00116	0.00118	0.00118	0.00118	0.00119	0.00119	0.00120
	Max	0.00116	0.00115	0.00115	0.00115	0.00116	0.00115	0.00116	0.00116	0.00117	0.00116	0.00117	0.00116
Total Zinc	Mean	0.0055	0.0033	0.0033	0.0056	0.0043	0.0042	0.0045	0.0048	0.0053	0.0055	0.0056	0.0054
	Min	0.0057	0.0033	0.0033	0.0066	0.0048	0.0046	0.0057	0.0058	0.0059	0.0057	0.0057	0.0057
	Max	0.0043	0.0033	0.0033	0.0038	0.0040	0.0037	0.0041	0.0042	0.0047	0.0044	0.0050	0.0043

**TABLE 22: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, MAIN METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00005	0.00005	0.00006	0.00007	0.00007	0.00008	0.00007
	Min	0.00008	0.00003	0.00003	0.00008	0.00006	0.00006	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00005	0.00006	0.00005	0.00006	0.00005
Total Copper	Mean	0.00040	0.00026	0.00026	0.00039	0.00032	0.00031	0.00033	0.00035	0.00038	0.00039	0.00040	0.00039
	Min	0.00042	0.00029	0.00029	0.00046	0.00035	0.00034	0.00040	0.00041	0.00041	0.00041	0.00041	0.00041
	Max	0.00032	0.00026	0.00026	0.00029	0.00030	0.00028	0.00030	0.00031	0.00034	0.00032	0.00036	0.00032
Total Lead	Mean	0.00059	0.00002	0.00003	0.00062	0.00026	0.00023	0.00034	0.00042	0.00054	0.00057	0.00060	0.00056
	Min	0.00067	0.00011	0.00013	0.00120	0.00040	0.00037	0.00065	0.00069	0.00072	0.00065	0.00064	0.00066
	Max	0.00026	0.00002	0.00002	0.00013	0.00018	0.00011	0.00021	0.00024	0.00038	0.00029	0.00046	0.00026
Total Selenium	Mean	0.00119	0.00116	0.00117	0.00118	0.00117	0.00116	0.00117	0.00117	0.00118	0.00119	0.00119	0.00118
	Min	0.00125	0.00125	0.00127	0.00129	0.00117	0.00117	0.00119	0.00119	0.00120	0.00121	0.00120	0.00123
	Max	0.00117	0.00116	0.00116	0.00116	0.00116	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00117
Total Zinc	Mean	0.0058	0.0033	0.0033	0.0058	0.0044	0.0042	0.0047	0.0050	0.0055	0.0057	0.0058	0.0057
	Min	0.0058	0.0033	0.0033	0.0069	0.0049	0.0048	0.0060	0.0061	0.0061	0.0059	0.0059	0.0059
	Max	0.0044	0.0033	0.0033	0.0038	0.0040	0.0038	0.0041	0.0043	0.0048	0.0045	0.0052	0.0044
		Prairie Creek at Park Boundary											
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00004	0.00005	0.00006	0.00006	0.00007	0.00007	0.00007
	Min	0.00007	0.00003	0.00003	0.00008	0.00006	0.00005	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00004	0.00005	0.00005	0.00006	0.00005
Total Copper	Mean	0.00038	0.00026	0.00026	0.00038	0.00031	0.00030	0.00032	0.00034	0.00037	0.00038	0.00038	0.00037
	Min	0.00040	0.00028	0.00029	0.00044	0.00034	0.00033	0.00039	0.00039	0.00040	0.00039	0.00039	0.00040
	Max	0.00031	0.00026	0.00026	0.00028	0.00029	0.00028	0.00030	0.00031	0.00033	0.00032	0.00035	0.00031
Total Lead	Mean	0.00053	0.00002	0.00002	0.00055	0.00023	0.00021	0.00030	0.00038	0.00049	0.00051	0.00054	0.00050
	Min	0.00061	0.00010	0.00012	0.00109	0.00036	0.00033	0.00059	0.00063	0.00065	0.00059	0.00058	0.00059
	Max	0.00024	0.00002	0.00002	0.00011	0.00016	0.00010	0.00019	0.00022	0.00035	0.00026	0.00041	0.00023
Total Selenium	Mean	0.00119	0.00116	0.00116	0.00118	0.00116	0.00116	0.00117	0.00117	0.00118	0.00119	0.00118	0.00118
	Min	0.00124	0.00124	0.00126	0.00128	0.00117	0.00117	0.00118	0.00119	0.00119	0.00120	0.00120	0.00122
	Max	0.00117	0.00116	0.00116	0.00115	0.00116	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00116
Total Zinc	Mean	0.0055	0.0033	0.0033	0.0056	0.0043	0.0042	0.0045	0.0048	0.0053	0.0054	0.0056	0.0054
	Min	0.0056	0.0033	0.0033	0.0066	0.0048	0.0046	0.0057	0.0058	0.0059	0.0057	0.0057	0.0056
	Max	0.0043	0.0033	0.0033	0.0038	0.0040	0.0037	0.0040	0.0042	0.0047	0.0044	0.0050	0.0043

**TABLE 23: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, MAIN METALS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00005	0.00005	0.00006	0.00007	0.00007	0.00008	0.00007
	Min	0.00008	0.00003	0.00003	0.00008	0.00006	0.00006	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00005	0.00006	0.00005	0.00006	0.00005
Total Copper	Mean	0.00040	0.00027	0.00027	0.00039	0.00032	0.00031	0.00033	0.00035	0.00038	0.00039	0.00040	0.00039
	Min	0.00042	0.00031	0.00031	0.00047	0.00035	0.00034	0.00041	0.00041	0.00042	0.00041	0.00041	0.00042
	Max	0.00032	0.00026	0.00026	0.00029	0.00030	0.00028	0.00031	0.00031	0.00034	0.00033	0.00037	0.00032
Total Lead	Mean	0.00059	0.00004	0.00004	0.00062	0.00026	0.00024	0.00035	0.00042	0.00057	0.00058	0.00061	0.00056
	Min	0.00069	0.00019	0.00020	0.00122	0.00040	0.00037	0.00068	0.00070	0.00076	0.00067	0.00065	0.00068
	Max	0.00026	0.00002	0.00002	0.00013	0.00018	0.00011	0.00022	0.00024	0.00040	0.00029	0.00046	0.00026
Total Selenium	Mean	0.00120	0.00118	0.00118	0.00119	0.00117	0.00117	0.00118	0.00119	0.00120	0.00120	0.00120	0.00119
	Min	0.00127	0.00133	0.00134	0.00136	0.00118	0.00118	0.00121	0.00121	0.00122	0.00124	0.00122	0.00126
	Max	0.00117	0.00116	0.00116	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00118	0.00119	0.00117
Total Zinc	Mean	0.0058	0.0033	0.0033	0.0058	0.0044	0.0042	0.0047	0.0050	0.0055	0.0056	0.0058	0.0056
	Min	0.0058	0.0032	0.0032	0.0067	0.0049	0.0048	0.0059	0.0060	0.0061	0.0059	0.0059	0.0058
	Max	0.0044	0.0033	0.0033	0.0038	0.0040	0.0037	0.0041	0.0042	0.0048	0.0045	0.0052	0.0044
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00004	0.00005	0.00006	0.00006	0.00007	0.00007	0.00007
	Min	0.00007	0.00003	0.00003	0.00008	0.00006	0.00005	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00004	0.00005	0.00005	0.00006	0.00005
Total Copper	Mean	0.00038	0.00027	0.00027	0.00038	0.00031	0.00031	0.00033	0.00034	0.00037	0.00038	0.00039	0.00038
	Min	0.00040	0.00030	0.00031	0.00045	0.00034	0.00033	0.00039	0.00040	0.00040	0.00040	0.00040	0.00040
	Max	0.00031	0.00026	0.00026	0.00028	0.00029	0.00028	0.00030	0.00031	0.00034	0.00032	0.00036	0.00031
Total Lead	Mean	0.00053	0.00003	0.00003	0.00056	0.00023	0.00021	0.00032	0.00038	0.00051	0.00052	0.00055	0.00051
	Min	0.00062	0.00018	0.00019	0.00111	0.00036	0.00033	0.00061	0.00063	0.00068	0.00060	0.00059	0.00061
	Max	0.00024	0.00002	0.00002	0.00011	0.00016	0.00010	0.00019	0.00022	0.00036	0.00027	0.00042	0.00024
Total Selenium	Mean	0.00119	0.00117	0.00117	0.00118	0.00117	0.00117	0.00118	0.00118	0.00119	0.00120	0.00119	0.00119
	Min	0.00126	0.00131	0.00132	0.00134	0.00118	0.00118	0.00120	0.00121	0.00122	0.00123	0.00121	0.00125
	Max	0.00117	0.00116	0.00116	0.00116	0.00116	0.00116	0.00117	0.00117	0.00118	0.00117	0.00118	0.00117
Total Zinc	Mean	0.0055	0.0033	0.0033	0.0056	0.0043	0.0041	0.0045	0.0048	0.0053	0.0054	0.0056	0.0054
	Min	0.0056	0.0032	0.0032	0.0064	0.0048	0.0046	0.0057	0.0058	0.0059	0.0056	0.0057	0.0056
	Max	0.0043	0.0033	0.0033	0.0038	0.0039	0.0037	0.0041	0.0042	0.0047	0.0044	0.0050	0.0043

**TABLE 24: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, MAIN METALS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00005	0.00005	0.00006	0.00007	0.00007	0.00007	0.00007
	Min	0.00006	0.00004	0.00004	0.00006	0.00006	0.00006	0.00008	0.00008	0.00008	0.00007	0.00007	0.00007
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00005	0.00006	0.00005	0.00006	0.00005
Total Copper	Mean	0.00044	0.00034	0.00034	0.00043	0.00032	0.00031	0.00034	0.00036	0.00038	0.00041	0.00042	0.00041
	Min	0.00052	0.00054	0.00054	0.00060	0.00035	0.00034	0.00041	0.00042	0.00042	0.00044	0.00044	0.00048
	Max	0.00034	0.00030	0.00030	0.00030	0.00030	0.00028	0.00031	0.00031	0.00035	0.00033	0.00039	0.00033
Total Lead	Mean	0.00074	0.00032	0.00032	0.00076	0.00027	0.00024	0.00036	0.00043	0.00058	0.00063	0.00069	0.00066
	Min	0.00103	0.00109	0.00110	0.00150	0.00042	0.00038	0.00069	0.00071	0.00078	0.00075	0.00077	0.00090
	Max	0.00035	0.00016	0.00017	0.00017	0.00019	0.00012	0.00022	0.00025	0.00041	0.00033	0.00054	0.00032
Total Selenium	Mean	0.00141	0.00145	0.00145	0.00139	0.00118	0.00118	0.00119	0.00120	0.00122	0.00127	0.00133	0.00133
	Min	0.00180	0.00220	0.00222	0.00219	0.00120	0.00119	0.00122	0.00123	0.00126	0.00135	0.00140	0.00160
	Max	0.00127	0.00130	0.00131	0.00120	0.00117	0.00116	0.00117	0.00118	0.00120	0.00121	0.00129	0.00123
Total Zinc	Mean	0.0053	0.0032	0.0032	0.0054	0.0043	0.0042	0.0047	0.0050	0.0055	0.0055	0.0055	0.0054
	Min	0.0047	0.0028	0.0028	0.0043	0.0049	0.0047	0.0059	0.0060	0.0060	0.0056	0.0055	0.0051
	Max	0.0043	0.0033	0.0033	0.0038	0.0040	0.0037	0.0041	0.0042	0.0048	0.0044	0.0050	0.0043
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00007	0.00003	0.00003	0.00007	0.00005	0.00004	0.00005	0.00006	0.00006	0.00007	0.00007	0.00007
	Min	0.00006	0.00004	0.00004	0.00006	0.00006	0.00005	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
	Max	0.00005	0.00003	0.00003	0.00004	0.00004	0.00004	0.00004	0.00004	0.00005	0.00005	0.00006	0.00005
Total Copper	Mean	0.00042	0.00033	0.00033	0.00042	0.00031	0.00031	0.00033	0.00035	0.00037	0.00039	0.00041	0.00040
	Min	0.00050	0.00053	0.00053	0.00059	0.00034	0.00033	0.00039	0.00040	0.00041	0.00042	0.00043	0.00046
	Max	0.00033	0.00030	0.00030	0.00029	0.00030	0.00028	0.00030	0.00031	0.00034	0.00033	0.00037	0.00033
Total Lead	Mean	0.00067	0.00029	0.00029	0.00069	0.00025	0.00022	0.00032	0.00039	0.00052	0.00057	0.00063	0.00060
	Min	0.00097	0.00104	0.00106	0.00144	0.00038	0.00034	0.00062	0.00064	0.00070	0.00068	0.00071	0.00083
	Max	0.00032	0.00015	0.00016	0.00015	0.00017	0.00011	0.00020	0.00022	0.00037	0.00029	0.00049	0.00029
Total Selenium	Mean	0.00138	0.00142	0.00143	0.00137	0.00118	0.00117	0.00118	0.00119	0.00121	0.00126	0.00131	0.00131
	Min	0.00175	0.00216	0.00218	0.00215	0.00120	0.00119	0.00122	0.00122	0.00125	0.00133	0.00138	0.00156
	Max	0.00126	0.00128	0.00129	0.00120	0.00117	0.00116	0.00117	0.00117	0.00119	0.00121	0.00127	0.00123
Total Zinc	Mean	0.0052	0.0032	0.0032	0.0052	0.0042	0.0041	0.0045	0.0048	0.0052	0.0053	0.0053	0.0052
	Min	0.0046	0.0028	0.0028	0.0042	0.0047	0.0046	0.0056	0.0057	0.0058	0.0054	0.0053	0.0050
	Max	0.0042	0.0033	0.0033	0.0037	0.0039	0.0037	0.0040	0.0041	0.0047	0.0043	0.0049	0.0042

**TABLE 25: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00013	0.00011	0.00011	0.00015	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.020	0.010	0.010	0.020	0.014	0.014	0.015	0.017	0.018	0.020	0.020	0.019
	Min	0.021	0.010	0.011	0.021	0.016	0.016	0.020	0.021	0.021	0.021	0.021	0.021
	Max	0.014	0.010	0.010	0.012	0.013	0.012	0.013	0.014	0.016	0.015	0.018	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000020	0.000020	0.000023	0.000022	0.000022	0.000023	0.000024	0.000024	0.000024	0.000024	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000021
Total Antimony	Mean	0.0005	0.0002	0.0003	0.0004	0.0003	0.0002	0.0003	0.0003	0.0004	0.0005	0.0006	0.0005
	Min	0.0011	0.0011	0.0013	0.0012	0.0004	0.0003	0.0005	0.0005	0.0005	0.0007	0.0007	0.0010
	Max	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0003
		Prairie Creek at Park Boundary											
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012	0.00013	0.00012
	Min	0.00013	0.00011	0.00011	0.00014	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.019	0.010	0.010	0.019	0.014	0.013	0.015	0.016	0.018	0.019	0.019	0.018
	Min	0.020	0.010	0.010	0.020	0.016	0.015	0.019	0.020	0.020	0.020	0.020	0.020
	Max	0.014	0.010	0.010	0.012	0.012	0.011	0.013	0.013	0.015	0.014	0.017	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000020	0.000020	0.000023	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0005	0.0002	0.0003	0.0004	0.0003	0.0002	0.0003	0.0003	0.0004	0.0005	0.0005	0.0005
	Min	0.0010	0.0010	0.0012	0.0011	0.0003	0.0003	0.0004	0.0005	0.0005	0.0006	0.0006	0.0009
	Max	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0003

**TABLE 26: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00013	0.00012	0.00012	0.00015	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.020	0.010	0.010	0.020	0.014	0.014	0.015	0.017	0.018	0.020	0.020	0.019
	Min	0.021	0.011	0.011	0.021	0.016	0.016	0.020	0.021	0.021	0.021	0.021	0.021
	Max	0.014	0.010	0.010	0.012	0.013	0.012	0.013	0.014	0.016	0.015	0.018	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000023	0.000022	0.000022	0.000023	0.000024	0.000024	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000021
Total Antimony	Mean	0.0007	0.0003	0.0003	0.0005	0.0003	0.0003	0.0004	0.0004	0.0005	0.0007	0.0007	0.0006
	Min	0.0016	0.0016	0.0019	0.0018	0.0004	0.0004	0.0006	0.0007	0.0007	0.0010	0.0009	0.0013
	Max	0.0004	0.0002	0.0002	0.0002	0.0003	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0003
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00012
	Min	0.00013	0.00011	0.00012	0.00014	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.019	0.010	0.010	0.019	0.014	0.013	0.015	0.016	0.018	0.019	0.019	0.019
	Min	0.020	0.011	0.011	0.020	0.016	0.015	0.019	0.020	0.020	0.020	0.020	0.020
	Max	0.014	0.010	0.010	0.012	0.012	0.011	0.013	0.013	0.015	0.014	0.017	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000023	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000020	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0006	0.0003	0.0003	0.0004	0.0003	0.0003	0.0003	0.0004	0.0005	0.0006	0.0006	0.0006
	Min	0.0015	0.0014	0.0017	0.0016	0.0004	0.0004	0.0006	0.0006	0.0007	0.0009	0.0008	0.0012
	Max	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0004	0.0004	0.0005	0.0003

**TABLE 27: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER METALS, HIGH K ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00013	0.00012	0.00012	0.00015	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.020	0.010	0.010	0.020	0.014	0.014	0.015	0.017	0.018	0.020	0.020	0.019
	Min	0.021	0.011	0.011	0.021	0.016	0.016	0.020	0.021	0.021	0.021	0.021	0.021
	Max	0.014	0.010	0.010	0.012	0.013	0.012	0.013	0.014	0.016	0.015	0.018	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000022	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000022	0.000021
Total Antimony	Mean	0.0008	0.0005	0.0005	0.0006	0.0004	0.0004	0.0005	0.0006	0.0007	0.0009	0.0008	0.0007
	Min	0.0019	0.0029	0.0030	0.0028	0.0005	0.0006	0.0009	0.0010	0.0011	0.0014	0.0011	0.0017
	Max	0.0004	0.0003	0.0003	0.0002	0.0003	0.0002	0.0004	0.0004	0.0006	0.0005	0.0007	0.0004
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00011	0.00011	0.00013	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00013	0.00012	0.00012	0.00015	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
	Max	0.00012	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
Total Iron	Mean	0.019	0.010	0.010	0.019	0.014	0.013	0.015	0.016	0.018	0.019	0.019	0.019
	Min	0.020	0.011	0.011	0.020	0.016	0.015	0.019	0.020	0.020	0.020	0.020	0.020
	Max	0.014	0.010	0.010	0.012	0.012	0.012	0.013	0.013	0.015	0.014	0.017	0.014
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000022	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000020	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0007	0.0005	0.0005	0.0005	0.0004	0.0004	0.0005	0.0006	0.0007	0.0008	0.0008	0.0007
	Min	0.0018	0.0026	0.0027	0.0026	0.0005	0.0005	0.0008	0.0009	0.0010	0.0013	0.0010	0.0016
	Max	0.0004	0.0003	0.0003	0.0002	0.0003	0.0002	0.0003	0.0004	0.0005	0.0005	0.0006	0.0004

**TABLE 28: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER METALS, HIGH K + PCAA ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00002	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00002
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00014	0.00013	0.00013	0.00014	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00016	0.00017	0.00017	0.00018	0.00012	0.00012	0.00013	0.00013	0.00013	0.00014	0.00014	0.00015
	Max	0.00012	0.00012	0.00012	0.00012	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00013	0.00012
Total Iron	Mean	0.020	0.012	0.012	0.020	0.014	0.014	0.015	0.017	0.018	0.020	0.020	0.020
	Min	0.021	0.017	0.017	0.021	0.017	0.016	0.020	0.021	0.021	0.021	0.021	0.021
	Max	0.015	0.011	0.011	0.012	0.013	0.012	0.013	0.014	0.016	0.015	0.018	0.015
Total Mercury	Mean	0.000021	0.000018	0.000018	0.000022	0.000021	0.000021	0.000022	0.000022	0.000023	0.000022	0.000022	0.000022
	Min	0.000018	0.000014	0.000014	0.000015	0.000022	0.000022	0.000023	0.000023	0.000023	0.000022	0.000022	0.000020
	Max	0.000021	0.000019	0.000019	0.000020	0.000021	0.000021	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0040	0.0047	0.0047	0.0038	0.0006	0.0005	0.0007	0.0008	0.0011	0.0020	0.0028	0.0028
	Min	0.0100	0.0162	0.0164	0.0158	0.0009	0.0007	0.0012	0.0013	0.0016	0.0032	0.0040	0.0069
	Max	0.0019	0.0023	0.0025	0.0009	0.0004	0.0003	0.0004	0.0005	0.0008	0.0011	0.0022	0.0014
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00002	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00012	0.00013	0.00014	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013
	Min	0.00015	0.00017	0.00017	0.00018	0.00012	0.00012	0.00013	0.00013	0.00013	0.00013	0.00014	0.00014
	Max	0.00012	0.00012	0.00012	0.00012	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00013	0.00012
Total Iron	Mean	0.019	0.012	0.012	0.019	0.014	0.013	0.015	0.016	0.018	0.019	0.019	0.019
	Min	0.020	0.017	0.017	0.021	0.016	0.015	0.019	0.020	0.020	0.020	0.020	0.020
	Max	0.014	0.011	0.011	0.012	0.013	0.012	0.013	0.013	0.015	0.014	0.017	0.014
Total Mercury	Mean	0.000021	0.000018	0.000018	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000022	0.000022	0.000022
	Min	0.000019	0.000014	0.000014	0.000015	0.000022	0.000022	0.000023	0.000023	0.000023	0.000022	0.000022	0.000020
	Max	0.000021	0.000019	0.000019	0.000020	0.000021	0.000020	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0036	0.0043	0.0044	0.0034	0.0006	0.0004	0.0006	0.0007	0.0010	0.0018	0.0025	0.0025
	Min	0.0093	0.0155	0.0158	0.0152	0.0008	0.0006	0.0011	0.0012	0.0015	0.0029	0.0036	0.0064
	Max	0.0018	0.0021	0.0023	0.0008	0.0004	0.0003	0.0004	0.0004	0.0007	0.0010	0.0020	0.0013

**TABLE 29: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER PARAMETERS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Ammonia	Mean	0.011	0.009	0.009	0.008	0.007	0.007	0.007	0.008	0.009	0.011	0.011	0.011
	Min	0.026	0.032	0.039	0.031	0.008	0.008	0.010	0.010	0.011	0.015	0.015	0.022
	Max	0.008	0.007	0.007	0.006	0.006	0.006	0.006	0.007	0.008	0.008	0.010	0.008
Nitrate	Mean	0.194	0.177	0.183	0.171	0.165	0.161	0.166	0.170	0.176	0.192	0.196	0.191
	Min	0.305	0.354	0.405	0.342	0.174	0.168	0.182	0.187	0.194	0.223	0.221	0.279
	Max	0.169	0.162	0.165	0.154	0.160	0.155	0.160	0.161	0.168	0.171	0.185	0.169
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0022	0.0022	0.0023	0.0024	0.0024	0.0024	0.0024
	Min	0.0025	0.0021	0.0021	0.0025	0.0023	0.0022	0.0024	0.0025	0.0025	0.0025	0.0025	0.0025
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0022	0.0023	0.0022	0.0023	0.0022
Sulphate	Mean	79.4	70.1	70.5	77.4	72.5	71.7	73.4	74.8	76.8	78.9	79.8	78.7
	Min	88.4	83.8	87.7	91.5	75.0	73.9	78.7	79.5	80.1	82.3	82.1	86.4
	Max	73.0	68.9	69.2	69.8	71.0	69.7	71.3	71.8	74.1	73.4	76.9	72.9
TDS	Mean	283.2	271.2	271.7	281.2	274.6	273.7	275.9	277.7	280.2	282.6	283.6	282.4
	Min	293.0	285.9	290.1	297.8	277.8	276.6	282.6	283.7	284.4	286.4	286.3	290.9
	Max	275.2	270.0	270.3	271.3	272.8	271.2	273.2	273.8	276.8	275.7	280.0	275.1
		Prairie Creek at Park Boundary											
Ammonia	Mean	0.011	0.008	0.009	0.008	0.007	0.006	0.007	0.008	0.008	0.010	0.011	0.010
	Min	0.024	0.029	0.035	0.028	0.008	0.007	0.009	0.010	0.011	0.014	0.014	0.021
	Max	0.007	0.006	0.007	0.006	0.006	0.006	0.006	0.006	0.007	0.008	0.009	0.007
Nitrate	Mean	0.190	0.174	0.180	0.169	0.164	0.160	0.165	0.168	0.173	0.188	0.192	0.187
	Min	0.290	0.334	0.380	0.324	0.171	0.166	0.179	0.183	0.190	0.216	0.214	0.266
	Max	0.167	0.161	0.164	0.154	0.159	0.155	0.159	0.160	0.166	0.169	0.181	0.167
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0021	0.0022	0.0023	0.0023	0.0024	0.0024	0.0024
	Min	0.0024	0.0020	0.0021	0.0025	0.0022	0.0022	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0021	0.0022	0.0022	0.0023	0.0022
Sulphate	Mean	78.3	69.9	70.3	76.5	72.0	71.3	72.9	74.2	75.9	77.8	78.6	77.6
	Min	86.4	82.2	85.8	89.3	74.3	73.3	77.6	78.4	78.9	80.8	80.7	84.6
	Max	72.4	68.8	69.1	69.6	70.7	69.5	70.9	71.4	73.5	72.8	76.0	72.4
TDS	Mean	281.8	271.0	271.4	280.0	274.0	273.3	275.2	276.9	279.1	281.2	282.2	281.0
	Min	290.6	284.2	288.1	295.1	276.9	275.8	281.3	282.2	282.8	284.7	284.5	288.7
	Max	274.5	269.9	270.1	271.1	272.4	271.0	272.7	273.4	276.0	275.0	278.9	274.5

**TABLE 30: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER PARAMETERS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Ammonia	Mean	0.015	0.010	0.011	0.010	0.009	0.008	0.009	0.010	0.012	0.015	0.015	0.013
	Min	0.041	0.045	0.054	0.046	0.011	0.009	0.013	0.014	0.016	0.023	0.020	0.031
	Max	0.010	0.007	0.008	0.006	0.007	0.006	0.007	0.008	0.010	0.010	0.012	0.009
Nitrate	Mean	0.227	0.190	0.199	0.183	0.176	0.170	0.179	0.187	0.199	0.226	0.221	0.212
	Min	0.418	0.450	0.524	0.458	0.191	0.182	0.208	0.217	0.234	0.284	0.260	0.345
	Max	0.184	0.168	0.173	0.156	0.168	0.159	0.168	0.171	0.184	0.188	0.204	0.178
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0022	0.0022	0.0023	0.0024	0.0024	0.0024	0.0024
	Min	0.0025	0.0021	0.0021	0.0026	0.0023	0.0022	0.0024	0.0025	0.0025	0.0025	0.0025	0.0025
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0022	0.0023	0.0022	0.0023	0.0022
Sulphate	Mean	81.9	71.1	71.8	78.4	73.3	72.4	74.5	76.1	78.5	81.5	81.7	80.3
	Min	97.0	91.2	96.9	100.3	76.3	75.0	80.7	81.8	83.1	86.8	85.0	91.4
	Max	74.1	69.4	69.8	70.0	71.6	70.0	71.9	72.5	75.4	74.7	78.3	73.6
TDS	Mean	285.9	272.3	273.1	282.2	275.5	274.5	277.0	279.1	282.1	285.4	285.7	284.1
	Min	302.1	293.9	300.0	307.1	279.2	277.7	284.7	286.1	287.6	291.3	289.4	296.2
	Max	276.3	270.5	270.9	271.5	273.4	271.5	273.8	274.6	278.2	277.1	281.6	275.9
Prairie Creek at Park Boundary													
Ammonia	Mean	0.014	0.010	0.011	0.009	0.008	0.008	0.009	0.010	0.011	0.014	0.014	0.013
	Min	0.037	0.041	0.050	0.042	0.010	0.009	0.012	0.013	0.015	0.021	0.018	0.028
	Max	0.009	0.007	0.008	0.006	0.007	0.006	0.007	0.008	0.009	0.010	0.012	0.008
Nitrate	Mean	0.220	0.186	0.194	0.180	0.174	0.168	0.177	0.183	0.194	0.218	0.214	0.205
	Min	0.392	0.421	0.488	0.429	0.187	0.179	0.202	0.210	0.225	0.270	0.249	0.325
	Max	0.180	0.166	0.171	0.156	0.166	0.158	0.166	0.169	0.181	0.184	0.199	0.175
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0021	0.0022	0.0023	0.0023	0.0024	0.0024	0.0024
	Min	0.0025	0.0021	0.0021	0.0025	0.0023	0.0022	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0021	0.0022	0.0022	0.0023	0.0022
Sulphate	Mean	80.5	70.8	71.4	77.3	72.8	72.0	73.8	75.3	77.5	80.1	80.3	79.1
	Min	94.2	89.0	94.1	97.2	75.5	74.3	79.4	80.4	81.6	85.0	83.3	89.1
	Max	73.4	69.2	69.6	69.8	71.2	69.8	71.5	72.0	74.6	74.0	77.3	73.1
TDS	Mean	284.2	272.0	272.7	280.9	274.9	273.9	276.2	278.1	280.8	283.7	284.0	282.5
	Min	298.9	291.5	297.0	303.5	278.2	276.9	283.2	284.4	285.7	289.1	287.3	293.5
	Max	275.6	270.3	270.7	271.3	272.9	271.3	273.3	274.0	277.2	276.3	280.3	275.2

**TABLE 31: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER PARAMETERS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Ammonia	Mean	0.018	0.015	0.016	0.013	0.010	0.011	0.014	0.016	0.018	0.022	0.019	0.017
	Min	0.049	0.080	0.083	0.075	0.013	0.014	0.022	0.024	0.027	0.034	0.027	0.043
	Max	0.011	0.010	0.010	0.007	0.008	0.008	0.010	0.011	0.014	0.013	0.016	0.011
Nitrate	Mean	0.246	0.229	0.231	0.207	0.188	0.194	0.214	0.230	0.247	0.274	0.256	0.241
	Min	0.480	0.718	0.744	0.674	0.210	0.220	0.275	0.294	0.314	0.367	0.312	0.436
	Max	0.192	0.185	0.188	0.161	0.176	0.170	0.188	0.195	0.218	0.212	0.230	0.192
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0022	0.0022	0.0023	0.0024	0.0024	0.0024	0.0024
	Min	0.0025	0.0021	0.0022	0.0026	0.0023	0.0023	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0022	0.0023	0.0022	0.0023	0.0022
Sulphate	Mean	83.3	74.1	74.3	80.2	74.2	74.2	77.1	79.4	82.2	85.1	84.3	82.5
	Min	101.7	111.9	113.9	116.6	77.7	77.9	85.7	87.6	89.2	93.1	89.0	98.3
	Max	74.7	70.7	71.0	70.3	72.2	70.9	73.5	74.3	77.9	76.5	80.3	74.7
TDS	Mean	287.4	275.6	275.7	284.2	276.5	276.4	279.9	282.6	286.0	289.2	288.4	286.5
	Min	307.1	316.0	318.2	324.4	280.8	280.8	290.2	292.3	294.1	298.0	293.6	303.5
	Max	277.0	271.9	272.2	271.9	274.0	272.4	275.5	276.6	280.9	279.1	283.7	277.0
		Prairie Creek at Park Boundary											
Ammonia	Mean	0.017	0.014	0.015	0.012	0.010	0.010	0.013	0.015	0.017	0.020	0.018	0.016
	Min	0.045	0.073	0.076	0.068	0.012	0.013	0.020	0.022	0.025	0.031	0.025	0.039
	Max	0.010	0.009	0.010	0.006	0.008	0.007	0.010	0.010	0.013	0.012	0.015	0.010
Nitrate	Mean	0.236	0.221	0.223	0.202	0.184	0.189	0.207	0.222	0.237	0.262	0.245	0.232
	Min	0.449	0.666	0.690	0.626	0.204	0.213	0.262	0.280	0.298	0.346	0.296	0.408
	Max	0.188	0.181	0.184	0.160	0.173	0.168	0.185	0.190	0.211	0.206	0.222	0.188
Total Phosphorous	Mean	0.0024	0.0020	0.0020	0.0024	0.0022	0.0021	0.0022	0.0023	0.0023	0.0024	0.0024	0.0024
	Min	0.0025	0.0021	0.0021	0.0025	0.0023	0.0022	0.0024	0.0024	0.0024	0.0024	0.0024	0.0025
	Max	0.0022	0.0020	0.0020	0.0021	0.0021	0.0021	0.0021	0.0021	0.0022	0.0022	0.0023	0.0022
Sulphate	Mean	81.8	73.5	73.7	79.0	73.6	73.6	76.2	78.3	80.7	83.4	82.6	81.1
	Min	98.5	107.8	109.7	112.2	76.8	76.9	83.9	85.7	87.1	90.7	86.9	95.4
	Max	74.0	70.4	70.7	70.1	71.8	70.6	72.9	73.7	76.9	75.7	79.1	74.0
TDS	Mean	285.6	274.9	275.1	282.6	275.7	275.7	278.8	281.2	284.3	287.2	286.5	284.7
	Min	303.5	311.7	313.7	319.4	279.6	279.6	288.1	290.0	291.6	295.2	291.2	300.2
	Max	276.2	271.6	271.9	271.6	273.5	272.1	274.9	275.8	279.7	278.1	282.2	276.2

**TABLE 32: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2011 TREATED WATER DATA, OTHER PARAMETERS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Ammonia	Mean	0.106	0.129	0.131	0.100	0.016	0.013	0.017	0.020	0.027	0.051	0.072	0.073
	Min	0.269	0.441	0.448	0.431	0.023	0.018	0.028	0.032	0.041	0.083	0.104	0.186
	Max	0.052	0.066	0.070	0.025	0.013	0.009	0.012	0.013	0.020	0.028	0.057	0.038
Nitrate	Mean	0.914	1.093	1.108	0.867	0.236	0.212	0.240	0.261	0.312	0.496	0.659	0.661
	Min	2.157	3.466	3.516	3.381	0.284	0.248	0.325	0.349	0.422	0.738	0.904	1.524
	Max	0.509	0.611	0.646	0.303	0.208	0.179	0.204	0.212	0.264	0.326	0.543	0.396
Total Phosphorous	Mean	0.0026	0.0022	0.0022	0.0025	0.0022	0.0022	0.0022	0.0023	0.0024	0.0025	0.0025	0.0025
	Min	0.0028	0.0029	0.0029	0.0030	0.0023	0.0023	0.0025	0.0025	0.0025	0.0026	0.0026	0.0027
	Max	0.0023	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0022	0.0023	0.0022	0.0024	0.0022
Sulphate	Mean	133.9	140.9	142.0	130.1	77.9	75.6	79.1	81.8	87.1	101.9	114.8	114.4
	Min	228.4	324.1	328.0	321.0	83.4	80.1	89.5	91.8	97.3	121.2	133.7	180.5
	Max	99.0	103.6	106.3	81.2	74.7	71.5	74.7	75.7	81.4	85.3	104.1	90.3
TDS	Mean	341.4	347.1	348.3	337.4	280.4	277.9	282.0	285.1	291.3	307.2	321.0	320.4
	Min	442.3	543.6	547.8	541.7	286.8	283.1	294.2	296.7	302.8	327.9	341.2	391.2
	Max	303.0	307.1	310.1	283.6	276.7	273.1	276.8	278.0	284.7	288.5	309.1	293.8
		Prairie Creek at Park Boundary											
Ammonia	Mean	0.097	0.119	0.120	0.091	0.015	0.012	0.016	0.018	0.024	0.046	0.066	0.066
	Min	0.252	0.424	0.431	0.413	0.021	0.017	0.026	0.029	0.038	0.076	0.096	0.172
	Max	0.048	0.060	0.064	0.023	0.012	0.008	0.012	0.012	0.019	0.026	0.052	0.034
Nitrate	Mean	0.847	1.013	1.027	0.803	0.227	0.206	0.231	0.250	0.296	0.463	0.612	0.614
	Min	2.027	3.334	3.386	3.251	0.271	0.238	0.308	0.329	0.396	0.684	0.837	1.418
	Max	0.475	0.567	0.599	0.287	0.202	0.176	0.199	0.206	0.252	0.309	0.505	0.372
Total Phosphorous	Mean	0.0025	0.0022	0.0022	0.0025	0.0022	0.0021	0.0022	0.0023	0.0024	0.0024	0.0025	0.0024
	Min	0.0027	0.0028	0.0028	0.0030	0.0023	0.0022	0.0024	0.0024	0.0025	0.0025	0.0025	0.0026
	Max	0.0022	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0022	0.0022	0.0022	0.0024	0.0022
Sulphate	Mean	128.1	134.7	135.7	124.6	76.9	74.9	78.0	80.4	85.2	98.7	110.5	110.1
	Min	218.0	314.0	318.0	310.8	81.9	78.9	87.4	89.4	94.5	116.3	127.9	171.9
	Max	96.0	100.2	102.7	79.9	74.0	71.2	74.0	74.9	80.1	83.6	100.7	88.2
TDS	Mean	335.0	340.5	341.6	331.3	279.3	277.0	280.7	283.5	289.1	303.5	316.2	315.6
	Min	431.0	532.7	537.0	530.7	285.0	281.7	291.8	294.0	299.5	322.5	334.9	381.8
	Max	299.8	303.6	306.2	282.1	275.9	272.7	276.1	277.1	283.1	286.5	305.3	291.3

**TABLE 33: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, MAIN METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00004	0.00004	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00032	0.00030	0.00030	0.00029	0.00028	0.00028	0.00028	0.00029	0.00030	0.00032	0.00032	0.00032
	Min	0.00047	0.00053	0.00060	0.00055	0.00029	0.00029	0.00031	0.00032	0.00033	0.00036	0.00036	0.00043
	Max	0.00029	0.00028	0.00028	0.00027	0.00027	0.00027	0.00027	0.00028	0.00029	0.00029	0.00031	0.00029
Total Lead	Mean	0.00018	0.00001	0.00001	0.00023	0.00009	0.00009	0.00013	0.00016	0.00021	0.00018	0.00019	0.00017
	Min	0.00019	0.00001	0.00001	0.00074	0.00014	0.00014	0.00024	0.00026	0.00029	0.00020	0.00019	0.00019
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00005	0.00008	0.00009	0.00015	0.00009	0.00014	0.00008
Total Selenium	Mean	0.00124	0.00116	0.00116	0.00123	0.00119	0.00118	0.00119	0.00121	0.00122	0.00123	0.00124	0.00123
	Min	0.00129	0.00123	0.00126	0.00133	0.00121	0.00120	0.00124	0.00124	0.00125	0.00125	0.00125	0.00128
	Max	0.00119	0.00115	0.00116	0.00116	0.00117	0.00116	0.00118	0.00118	0.00120	0.00119	0.00122	0.00119
Total Zinc	Mean	0.0035	0.0034	0.0034	0.0036	0.0034	0.0034	0.0035	0.0035	0.0036	0.0035	0.0035	0.0035
	Min	0.0038	0.0039	0.0040	0.0051	0.0035	0.0035	0.0036	0.0036	0.0037	0.0036	0.0036	0.0037
	Max	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0034	0.0035	0.0034
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00004	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00031	0.00029	0.00030	0.00029	0.00028	0.00027	0.00028	0.00029	0.00030	0.00031	0.00032	0.00031
	Min	0.00045	0.00051	0.00057	0.00053	0.00029	0.00028	0.00030	0.00031	0.00032	0.00035	0.00035	0.00042
	Max	0.00028	0.00027	0.00028	0.00027	0.00027	0.00027	0.00027	0.00028	0.00028	0.00029	0.00030	0.00028
Total Lead	Mean	0.00016	0.00001	0.00001	0.00021	0.00008	0.00008	0.00012	0.00014	0.00019	0.00016	0.00017	0.00016
	Min	0.00018	0.00001	0.00001	0.00067	0.00012	0.00013	0.00022	0.00024	0.00026	0.00018	0.00018	0.00018
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00004	0.00007	0.00008	0.00013	0.00008	0.00013	0.00008
Total Selenium	Mean	0.00123	0.00116	0.00116	0.00122	0.00118	0.00118	0.00119	0.00120	0.00121	0.00123	0.00123	0.00122
	Min	0.00127	0.00123	0.00125	0.00131	0.00120	0.00119	0.00123	0.00123	0.00124	0.00124	0.00124	0.00126
	Max	0.00118	0.00115	0.00116	0.00116	0.00117	0.00116	0.00117	0.00118	0.00119	0.00119	0.00121	0.00118
Total Zinc	Mean	0.0035	0.0034	0.0034	0.0035	0.0034	0.0034	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035
	Min	0.0038	0.0038	0.0039	0.0049	0.0035	0.0035	0.0036	0.0036	0.0037	0.0036	0.0036	0.0037
	Max	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0034	0.0035	0.0034

**TABLE 34: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, MAIN METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00004	0.00004	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00036	0.00031	0.00033	0.00031	0.00030	0.00029	0.00030	0.00031	0.00033	0.00036	0.00036	0.00034
	Min	0.00062	0.00066	0.00076	0.00071	0.00032	0.00031	0.00034	0.00036	0.00038	0.00044	0.00041	0.00052
	Max	0.00031	0.00028	0.00029	0.00027	0.00028	0.00027	0.00029	0.00029	0.00031	0.00031	0.00033	0.00030
Total Lead	Mean	0.00018	0.00001	0.00001	0.00023	0.00009	0.00009	0.00013	0.00016	0.00021	0.00018	0.00019	0.00017
	Min	0.00019	0.00002	0.00002	0.00072	0.00014	0.00014	0.00024	0.00026	0.00028	0.00020	0.00019	0.00019
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00005	0.00008	0.00009	0.00015	0.00009	0.00014	0.00008
Total Selenium	Mean	0.00125	0.00117	0.00117	0.00123	0.00119	0.00118	0.00120	0.00121	0.00123	0.00125	0.00125	0.00124
	Min	0.00133	0.00127	0.00130	0.00137	0.00121	0.00120	0.00125	0.00126	0.00126	0.00128	0.00127	0.00130
	Max	0.00119	0.00116	0.00116	0.00117	0.00118	0.00117	0.00118	0.00118	0.00121	0.00120	0.00123	0.00119
Total Zinc	Mean	0.0036	0.0034	0.0035	0.0036	0.0034	0.0034	0.0035	0.0035	0.0036	0.0036	0.0036	0.0035
	Min	0.0041	0.0041	0.0043	0.0053	0.0035	0.0035	0.0037	0.0037	0.0038	0.0038	0.0037	0.0039
	Max	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0035	0.0035	0.0034
		Prairie Creek at Park Boundary											
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00004	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00035	0.00031	0.00032	0.00030	0.00029	0.00029	0.00030	0.00031	0.00032	0.00035	0.00035	0.00033
	Min	0.00058	0.00062	0.00071	0.00067	0.00031	0.00030	0.00033	0.00035	0.00037	0.00042	0.00039	0.00050
	Max	0.00030	0.00028	0.00029	0.00027	0.00028	0.00027	0.00028	0.00029	0.00030	0.00031	0.00033	0.00029
Total Lead	Mean	0.00016	0.00001	0.00001	0.00021	0.00008	0.00008	0.00012	0.00014	0.00019	0.00016	0.00017	0.00016
	Min	0.00017	0.00001	0.00002	0.00065	0.00012	0.00013	0.00022	0.00023	0.00026	0.00018	0.00018	0.00017
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00004	0.00007	0.00008	0.00013	0.00008	0.00013	0.00008
Total Selenium	Mean	0.00124	0.00116	0.00117	0.00122	0.00119	0.00118	0.00119	0.00121	0.00122	0.00124	0.00124	0.00123
	Min	0.00131	0.00126	0.00129	0.00135	0.00121	0.00120	0.00124	0.00124	0.00125	0.00127	0.00126	0.00129
	Max	0.00119	0.00116	0.00116	0.00116	0.00117	0.00116	0.00118	0.00118	0.00120	0.00119	0.00122	0.00119
Total Zinc	Mean	0.0036	0.0034	0.0034	0.0036	0.0034	0.0034	0.0035	0.0035	0.0036	0.0036	0.0036	0.0035
	Min	0.0040	0.0040	0.0042	0.0051	0.0035	0.0035	0.0036	0.0037	0.0038	0.0037	0.0036	0.0038
	Max	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0034	0.0035	0.0034

**TABLE 35: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, MAIN METALS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00004	0.00004	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00039	0.00037	0.00037	0.00034	0.00031	0.00032	0.00035	0.00037	0.00039	0.00043	0.00040	0.00038
	Min	0.00070	0.00102	0.00105	0.00099	0.00034	0.00036	0.00043	0.00046	0.00049	0.00055	0.00048	0.00064
	Max	0.00032	0.00031	0.00031	0.00028	0.00029	0.00029	0.00031	0.00032	0.00035	0.00034	0.00037	0.00032
Total Lead	Mean	0.00018	0.00001	0.00001	0.00023	0.00009	0.00009	0.00013	0.00015	0.00022	0.00018	0.00018	0.00017
	Min	0.00019	0.00002	0.00002	0.00069	0.00014	0.00013	0.00025	0.00024	0.00030	0.00020	0.00019	0.00019
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00005	0.00008	0.00009	0.00015	0.00009	0.00014	0.00008
Total Selenium	Mean	0.00126	0.00118	0.00118	0.00124	0.00119	0.00119	0.00121	0.00123	0.00125	0.00127	0.00126	0.00125
	Min	0.00136	0.00138	0.00140	0.00146	0.00122	0.00122	0.00127	0.00129	0.00130	0.00131	0.00129	0.00134
	Max	0.00120	0.00116	0.00117	0.00117	0.00118	0.00117	0.00119	0.00119	0.00122	0.00121	0.00124	0.00120
Total Zinc	Mean	0.0036	0.0035	0.0035	0.0037	0.0035	0.0035	0.0036	0.0036	0.0038	0.0037	0.0037	0.0036
	Min	0.0043	0.0048	0.0049	0.0058	0.0036	0.0036	0.0039	0.0039	0.0041	0.0040	0.0038	0.0041
	Max	0.0035	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0035	0.0036	0.0035	0.0036	0.0035
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00038	0.00035	0.00036	0.00033	0.00031	0.00031	0.00034	0.00036	0.00038	0.00041	0.00039	0.00037
	Min	0.00066	0.00095	0.00098	0.00093	0.00033	0.00035	0.00041	0.00044	0.00046	0.00052	0.00046	0.00061
	Max	0.00031	0.00030	0.00031	0.00027	0.00029	0.00028	0.00031	0.00031	0.00034	0.00033	0.00036	0.00031
Total Lead	Mean	0.00016	0.00001	0.00001	0.00021	0.00008	0.00008	0.00012	0.00014	0.00020	0.00016	0.00017	0.00016
	Min	0.00017	0.00002	0.00002	0.00063	0.00012	0.00012	0.00023	0.00022	0.00027	0.00018	0.00017	0.00017
	Max	0.00008	0.00001	0.00001	0.00005	0.00006	0.00004	0.00008	0.00008	0.00014	0.00009	0.00013	0.00008
Total Selenium	Mean	0.00125	0.00118	0.00118	0.00123	0.00119	0.00119	0.00121	0.00122	0.00124	0.00125	0.00125	0.00124
	Min	0.00134	0.00136	0.00137	0.00143	0.00121	0.00121	0.00126	0.00127	0.00128	0.00130	0.00128	0.00132
	Max	0.00119	0.00116	0.00116	0.00117	0.00118	0.00117	0.00118	0.00119	0.00121	0.00120	0.00123	0.00119
Total Zinc	Mean	0.0036	0.0035	0.0035	0.0036	0.0035	0.0035	0.0036	0.0036	0.0037	0.0037	0.0036	0.0036
	Min	0.0042	0.0047	0.0047	0.0056	0.0035	0.0036	0.0038	0.0038	0.0040	0.0039	0.0038	0.0041
	Max	0.0035	0.0034	0.0034	0.0034	0.0034	0.0034	0.0035	0.0035	0.0036	0.0035	0.0036	0.0035

**TABLE 36: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, MAIN METALS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00004	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00128	0.00106	0.00125	0.00063	0.00038	0.00034	0.00038	0.00041	0.00048	0.00072	0.00094	0.00094
	Min	0.00294	0.00306	0.00374	0.00195	0.00044	0.00039	0.00050	0.00053	0.00063	0.00105	0.00127	0.00209
	Max	0.00074	0.00065	0.00077	0.00034	0.00034	0.00030	0.00033	0.00034	0.00042	0.00050	0.00078	0.00059
Total Lead	Mean	0.00017	0.00003	0.00003	0.00021	0.00009	0.00009	0.00013	0.00015	0.00021	0.00017	0.00018	0.00017
	Min	0.00016	0.00007	0.00007	0.00035	0.00014	0.00013	0.00025	0.00024	0.00030	0.00019	0.00018	0.00017
	Max	0.00009	0.00002	0.00002	0.00005	0.00006	0.00005	0.00008	0.00009	0.00015	0.00009	0.00014	0.00009
Total Selenium	Mean	0.00153	0.00136	0.00146	0.00119	0.00121	0.00120	0.00122	0.00124	0.00128	0.00136	0.00142	0.00142
	Min	0.00203	0.00190	0.00223	0.00135	0.00125	0.00123	0.00129	0.00131	0.00134	0.00146	0.00153	0.00177
	Max	0.00133	0.00125	0.00131	0.00116	0.00119	0.00117	0.00119	0.00120	0.00124	0.00125	0.00136	0.00128
Total Zinc	Mean	0.0054	0.0058	0.0058	0.0054	0.0036	0.0035	0.0037	0.0037	0.0039	0.0043	0.0047	0.0047
	Min	0.0086	0.0120	0.0122	0.0123	0.0038	0.0037	0.0040	0.0040	0.0043	0.0049	0.0054	0.0070
	Max	0.0043	0.0045	0.0046	0.0038	0.0035	0.0034	0.0035	0.0035	0.0038	0.0038	0.0044	0.0040
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Copper	Mean	0.00119	0.00099	0.00117	0.00060	0.00036	0.00034	0.00037	0.00040	0.00046	0.00068	0.00088	0.00088
	Min	0.00276	0.00295	0.00360	0.00189	0.00042	0.00038	0.00048	0.00050	0.00060	0.00097	0.00118	0.00195
	Max	0.00069	0.00061	0.00072	0.00033	0.00033	0.00030	0.00033	0.00034	0.00040	0.00047	0.00073	0.00056
Total Lead	Mean	0.00016	0.00002	0.00003	0.00020	0.00008	0.00008	0.00012	0.00014	0.00019	0.00016	0.00016	0.00015
	Min	0.00015	0.00007	0.00007	0.00034	0.00012	0.00012	0.00023	0.00022	0.00027	0.00018	0.00017	0.00016
	Max	0.00008	0.00002	0.00002	0.00005	0.00006	0.00004	0.00008	0.00008	0.00014	0.00009	0.00013	0.00008
Total Selenium	Mean	0.00149	0.00134	0.00143	0.00119	0.00121	0.00120	0.00122	0.00123	0.00126	0.00134	0.00140	0.00140
	Min	0.00197	0.00187	0.00219	0.00135	0.00124	0.00122	0.00128	0.00129	0.00132	0.00143	0.00149	0.00172
	Max	0.00131	0.00124	0.00129	0.00116	0.00119	0.00117	0.00119	0.00120	0.00123	0.00124	0.00134	0.00127
Total Zinc	Mean	0.0052	0.0056	0.0056	0.0052	0.0036	0.0035	0.0036	0.0037	0.0039	0.0042	0.0046	0.0046
	Min	0.0083	0.0117	0.0118	0.0119	0.0037	0.0036	0.0039	0.0040	0.0042	0.0048	0.0052	0.0067
	Max	0.0042	0.0044	0.0045	0.0037	0.0035	0.0034	0.0035	0.0035	0.0037	0.0038	0.0043	0.0039

**TABLE 37: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, OTHER METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00014	0.00012	0.00013	0.00012	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00014	0.00013
	Min	0.00019	0.00022	0.00024	0.00022	0.00012	0.00012	0.00013	0.00013	0.00014	0.00015	0.00015	0.00018
	Max	0.00012	0.00012	0.00012	0.00011	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00013	0.00012
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.010	0.010	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000024	0.000020	0.000020	0.000024	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000024	0.000023
	Min	0.000024	0.000020	0.000020	0.000024	0.000022	0.000022	0.000024	0.000024	0.000024	0.000024	0.000024	0.000024
	Max	0.000022	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000022
Total Antimony	Mean	0.0003	0.0002	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003
	Min	0.0008	0.0010	0.0012	0.0009	0.0002	0.0002	0.0003	0.0003	0.0003	0.0004	0.0004	0.0007
	Max	0.0002	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0003	0.0002
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00013	0.00012	0.00013	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00013
	Min	0.00018	0.00021	0.00023	0.00021	0.00012	0.00012	0.00013	0.00013	0.00013	0.00015	0.00015	0.00017
	Max	0.00012	0.00012	0.00012	0.00011	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00013	0.00012
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.010	0.010	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000020	0.000020	0.000023	0.000022	0.000022	0.000023	0.000024	0.000024	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000021
Total Antimony	Mean	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003
	Min	0.0007	0.0009	0.0011	0.0009	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0006
	Max	0.0002	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0003	0.0002

**TABLE 38: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, OTHER METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00015	0.00013	0.00014	0.00013	0.00012	0.00012	0.00013	0.00013	0.00014	0.00015	0.00015	0.00014
	Min	0.00025	0.00027	0.00030	0.00028	0.00013	0.00013	0.00014	0.00015	0.00016	0.00018	0.00017	0.00021
	Max	0.00013	0.00012	0.00012	0.00011	0.00012	0.00012	0.00012	0.00012	0.00013	0.00013	0.00014	0.00013
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.010	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000024	0.000020	0.000020	0.000024	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000024	0.000023
	Min	0.000023	0.000019	0.000019	0.000023	0.000022	0.000022	0.000024	0.000024	0.000024	0.000024	0.000024	0.000024
	Max	0.000022	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000022
Total Antimony	Mean	0.0005	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002	0.0003	0.0003	0.0005	0.0004	0.0004
	Min	0.0013	0.0014	0.0017	0.0014	0.0003	0.0003	0.0004	0.0004	0.0005	0.0007	0.0006	0.0010
	Max	0.0003	0.0002	0.0002	0.0001	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0002
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00015	0.00013	0.00013	0.00013	0.00012	0.00012	0.00013	0.00013	0.00014	0.00015	0.00015	0.00014
	Min	0.00024	0.00025	0.00028	0.00027	0.00013	0.00013	0.00014	0.00014	0.00015	0.00017	0.00016	0.00020
	Max	0.00013	0.00012	0.00012	0.00011	0.00012	0.00011	0.00012	0.00012	0.00013	0.00013	0.00014	0.00012
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000023	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000022	0.000021
Total Antimony	Mean	0.0004	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004
	Min	0.0012	0.0013	0.0016	0.0013	0.0003	0.0002	0.0003	0.0004	0.0004	0.0007	0.0006	0.0009
	Max	0.0002	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0002	0.0003	0.0003	0.0003	0.0002

**TABLE 39: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, OTHER METALS, HIGH K ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00016	0.00015	0.00015	0.00014	0.00013	0.00013	0.00015	0.00015	0.00016	0.00018	0.00017	0.00016
	Min	0.00028	0.00040	0.00042	0.00039	0.00014	0.00015	0.00018	0.00019	0.00020	0.00022	0.00020	0.00026
	Max	0.00013	0.00013	0.00013	0.00012	0.00012	0.00012	0.00013	0.00013	0.00015	0.00014	0.00015	0.00013
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000024	0.000023
	Min	0.000023	0.000019	0.000019	0.000023	0.000022	0.000022	0.000024	0.000024	0.000024	0.000023	0.000024	0.000023
	Max	0.000022	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000022	0.000023	0.000022
Total Antimony	Mean	0.0005	0.0005	0.0005	0.0004	0.0003	0.0003	0.0004	0.0005	0.0005	0.0007	0.0006	0.0005
	Min	0.0016	0.0026	0.0027	0.0024	0.0004	0.0004	0.0007	0.0008	0.0008	0.0011	0.0008	0.0014
	Max	0.0003	0.0003	0.0003	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0005	0.0003
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00016	0.00015	0.00015	0.00014	0.00013	0.00013	0.00014	0.00015	0.00016	0.00017	0.00016	0.00015
	Min	0.00027	0.00038	0.00039	0.00037	0.00014	0.00014	0.00017	0.00018	0.00019	0.00021	0.00019	0.00025
	Max	0.00013	0.00013	0.00013	0.00012	0.00012	0.00012	0.00013	0.00013	0.00014	0.00014	0.00015	0.00013
Total Iron	Mean	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Min	0.010	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	Max	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000023	0.000020	0.000020	0.000023	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023
	Min	0.000023	0.000019	0.000019	0.000022	0.000022	0.000022	0.000023	0.000023	0.000023	0.000023	0.000023	0.000023
	Max	0.000021	0.000020	0.000020	0.000021	0.000021	0.000021	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0005	0.0004	0.0004	0.0003	0.0003	0.0003	0.0004	0.0004	0.0005	0.0006	0.0005	0.0005
	Min	0.0014	0.0024	0.0025	0.0022	0.0004	0.0004	0.0006	0.0007	0.0008	0.0010	0.0008	0.0013
	Max	0.0003	0.0002	0.0003	0.0002	0.0002	0.0002	0.0003	0.0003	0.0004	0.0004	0.0004	0.0003

**TABLE 40: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
2010 TREATED WATER DATA, OTHER METALS, HIGH K + PCAA ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00002	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00002
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00051	0.00060	0.00061	0.00048	0.00016	0.00014	0.00016	0.00017	0.00020	0.00029	0.00038	0.00038
	Min	0.00115	0.00182	0.00185	0.00179	0.00018	0.00016	0.00020	0.00022	0.00026	0.00042	0.00050	0.00082
	Max	0.00030	0.00035	0.00037	0.00019	0.00014	0.00013	0.00014	0.00014	0.00017	0.00020	0.00031	0.00024
Total Iron	Mean	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.009
	Min	0.007	0.005	0.005	0.006	0.010	0.010	0.010	0.010	0.010	0.009	0.009	0.008
	Max	0.010	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.010
Total Mercury	Mean	0.000022	0.000018	0.000018	0.000022	0.000021	0.000021	0.000022	0.000022	0.000023	0.000023	0.000022	0.000022
	Min	0.000019	0.000014	0.000014	0.000015	0.000022	0.000022	0.000023	0.000024	0.000023	0.000022	0.000022	0.000020
	Max	0.000021	0.000019	0.000019	0.000020	0.000021	0.000021	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0035	0.0042	0.0043	0.0033	0.0005	0.0004	0.0005	0.0006	0.0008	0.0016	0.0024	0.0024
	Min	0.0089	0.0146	0.0149	0.0143	0.0007	0.0005	0.0009	0.0010	0.0013	0.0027	0.0034	0.0061
	Max	0.0017	0.0021	0.0023	0.0008	0.0004	0.0002	0.0004	0.0004	0.0006	0.0009	0.0018	0.0012
Prairie Creek at Park Boundary													
Total Silver	Mean	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
	Min	0.00002	0.00002	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00002
	Max	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
Total Arsenic	Mean	0.00047	0.00056	0.00056	0.00045	0.00015	0.00014	0.00015	0.00016	0.00019	0.00027	0.00035	0.00035
	Min	0.00108	0.00176	0.00178	0.00172	0.00017	0.00016	0.00020	0.00021	0.00024	0.00039	0.00047	0.00077
	Max	0.00028	0.00033	0.00034	0.00018	0.00014	0.00012	0.00014	0.00014	0.00017	0.00019	0.00030	0.00023
Total Iron	Mean	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.009
	Min	0.007	0.005	0.005	0.006	0.010	0.010	0.010	0.010	0.010	0.009	0.009	0.008
	Max	0.010	0.009	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Total Mercury	Mean	0.000022	0.000018	0.000018	0.000022	0.000021	0.000021	0.000022	0.000022	0.000022	0.000022	0.000022	0.000022
	Min	0.000019	0.000014	0.000014	0.000016	0.000022	0.000022	0.000023	0.000023	0.000023	0.000022	0.000022	0.000020
	Max	0.000021	0.000019	0.000019	0.000020	0.000021	0.000020	0.000021	0.000021	0.000022	0.000021	0.000022	0.000021
Total Antimony	Mean	0.0032	0.0039	0.0039	0.0030	0.0005	0.0004	0.0005	0.0006	0.0008	0.0015	0.0021	0.0022
	Min	0.0083	0.0141	0.0143	0.0137	0.0006	0.0005	0.0008	0.0009	0.0012	0.0025	0.0031	0.0057
	Max	0.0015	0.0019	0.0021	0.0007	0.0003	0.0002	0.0003	0.0004	0.0006	0.0008	0.0017	0.0011

**TABLE 41: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WORST TREATED WATER DATA, MAIN METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Arsenic	Mean	0.00028	0.00025	0.00026	0.00027	0.00025	0.00025	0.00026	0.00026	0.00027	0.00028	0.00028	0.00027
	Min	0.00033	0.00034	0.00037	0.00036	0.00026	0.00026	0.00027	0.00028	0.00028	0.00029	0.00029	0.00032
	Max	0.00026	0.00025	0.00025	0.00024	0.00025	0.00025	0.00025	0.00025	0.00026	0.00026	0.00027	0.00026
Total Copper	Mean	0.00075	0.00060	0.00061	0.00072	0.00064	0.00063	0.00066	0.00068	0.00071	0.00075	0.00076	0.00074
	Min	0.00090	0.00083	0.00090	0.00098	0.00068	0.00067	0.00074	0.00076	0.00077	0.00080	0.00080	0.00087
	Max	0.00065	0.00058	0.00059	0.00060	0.00062	0.00060	0.00062	0.00063	0.00067	0.00066	0.00071	0.00065
Total Zinc	Mean	0.0097	0.0072	0.0072	0.0097	0.0082	0.0081	0.0085	0.0089	0.0094	0.0096	0.0097	0.0095
	Min	0.0100	0.0075	0.0076	0.0111	0.0088	0.0086	0.0098	0.0100	0.0100	0.0099	0.0099	0.0100
	Max	0.0082	0.0072	0.0072	0.0076	0.0079	0.0076	0.0080	0.0081	0.0087	0.0083	0.0091	0.0082
Prairie Creek at Park Boundary													
Total Arsenic	Mean	0.00027	0.00025	0.00025	0.00026	0.00025	0.00025	0.00025	0.00026	0.00026	0.00027	0.00027	0.00027
	Min	0.00032	0.00033	0.00035	0.00035	0.00026	0.00026	0.00027	0.00027	0.00028	0.00029	0.00029	0.00031
	Max	0.00025	0.00025	0.00025	0.00024	0.00025	0.00024	0.00025	0.00025	0.00026	0.00026	0.00027	0.00025
Total Copper	Mean	0.00074	0.00060	0.00061	0.00071	0.00063	0.00062	0.00065	0.00067	0.00070	0.00073	0.00074	0.00072
	Min	0.00087	0.00080	0.00086	0.00094	0.00067	0.00066	0.00073	0.00074	0.00075	0.00078	0.00077	0.00084
	Max	0.00064	0.00058	0.00059	0.00060	0.00061	0.00060	0.00062	0.00063	0.00066	0.00065	0.00070	0.00064
Total Zinc	Mean	0.0094	0.0072	0.0072	0.0094	0.0081	0.0080	0.0084	0.0087	0.0091	0.0093	0.0095	0.0093
	Min	0.0097	0.0075	0.0076	0.0107	0.0086	0.0085	0.0096	0.0097	0.0098	0.0097	0.0096	0.0097
	Max	0.0081	0.0072	0.0072	0.0076	0.0078	0.0075	0.0079	0.0080	0.0085	0.0082	0.0089	0.0081

**TABLE 42: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WORST TREATED WATER DATA, MAIN METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Arsenic	Mean	0.00029	0.00026	0.00026	0.00027	0.00026	0.00026	0.00026	0.00027	0.00028	0.00029	0.00029	0.00028
	Min	0.00039	0.00039	0.00042	0.00042	0.00027	0.00027	0.00029	0.00029	0.00030	0.00032	0.00031	0.00035
	Max	0.00026	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00026	0.00027	0.00027	0.00028	0.00026
Total Copper	Mean	0.00079	0.00062	0.00063	0.00074	0.00066	0.00064	0.00068	0.00070	0.00074	0.00079	0.00079	0.00077
	Min	0.00104	0.00095	0.00105	0.00112	0.00070	0.00068	0.00078	0.00080	0.00082	0.00088	0.00085	0.00095
	Max	0.00067	0.00059	0.00060	0.00060	0.00063	0.00060	0.00063	0.00064	0.00069	0.00068	0.00074	0.00066
Total Zinc	Mean	0.0097	0.0072	0.0072	0.0097	0.0082	0.0081	0.0085	0.0089	0.0094	0.0096	0.0098	0.0096
	Min	0.0102	0.0077	0.0078	0.0112	0.0088	0.0087	0.0099	0.0100	0.0101	0.0100	0.0100	0.0101
	Max	0.0083	0.0072	0.0072	0.0076	0.0079	0.0076	0.0080	0.0081	0.0087	0.0084	0.0091	0.0083
Prairie Creek at Park Boundary													
Total Arsenic	Mean	0.00029	0.00026	0.00026	0.00027	0.00026	0.00025	0.00026	0.00027	0.00027	0.00029	0.00029	0.00028
	Min	0.00037	0.00037	0.00041	0.00040	0.00027	0.00026	0.00028	0.00029	0.00029	0.00031	0.00030	0.00034
	Max	0.00026	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00026	0.00026	0.00027	0.00026
Total Copper	Mean	0.00077	0.00062	0.00063	0.00072	0.00065	0.00063	0.00066	0.00069	0.00072	0.00077	0.00077	0.00075
	Min	0.00100	0.00092	0.00100	0.00107	0.00069	0.00067	0.00076	0.00077	0.00079	0.00085	0.00082	0.00091
	Max	0.00066	0.00059	0.00060	0.00060	0.00062	0.00060	0.00063	0.00064	0.00068	0.00067	0.00072	0.00065
Total Zinc	Mean	0.0095	0.0072	0.0072	0.0094	0.0081	0.0080	0.0084	0.0087	0.0092	0.0094	0.0095	0.0093
	Min	0.0099	0.0077	0.0078	0.0108	0.0087	0.0085	0.0096	0.0097	0.0098	0.0097	0.0097	0.0098
	Max	0.0082	0.0072	0.0072	0.0076	0.0078	0.0075	0.0079	0.0080	0.0086	0.0083	0.0089	0.0081

**TABLE 43: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WORST TREATED WATER DATA, MAIN METALS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Arsenic	Mean	0.00030	0.00028	0.00028	0.00028	0.00027	0.00027	0.00028	0.00029	0.00030	0.00032	0.00031	0.00030
	Min	0.00042	0.00052	0.00053	0.00052	0.00028	0.00028	0.00032	0.00033	0.00034	0.00036	0.00034	0.00040
	Max	0.00027	0.00026	0.00026	0.00025	0.00026	0.00025	0.00026	0.00027	0.00028	0.00028	0.00029	0.00027
Total Copper	Mean	0.00082	0.00067	0.00067	0.00077	0.00067	0.00067	0.00072	0.00076	0.00080	0.00085	0.00083	0.00081
	Min	0.00112	0.00129	0.00133	0.00139	0.00073	0.00073	0.00086	0.00089	0.00092	0.00098	0.00091	0.00106
	Max	0.00068	0.00061	0.00062	0.00061	0.00064	0.00062	0.00066	0.00067	0.00073	0.00071	0.00077	0.00068
Total Zinc	Mean	0.0098	0.0073	0.0073	0.0097	0.0082	0.0081	0.0086	0.0089	0.0095	0.0097	0.0098	0.0096
	Min	0.0103	0.0082	0.0083	0.0115	0.0089	0.0087	0.0100	0.0101	0.0102	0.0101	0.0100	0.0102
	Max	0.0083	0.0072	0.0072	0.0076	0.0079	0.0076	0.0080	0.0081	0.0088	0.0084	0.0092	0.0083
		Prairie Creek at Park Boundary											
Total Arsenic	Mean	0.00030	0.00028	0.00028	0.00028	0.00026	0.00026	0.00028	0.00028	0.00030	0.00031	0.00030	0.00029
	Min	0.00040	0.00049	0.00051	0.00050	0.00028	0.00028	0.00031	0.00032	0.00033	0.00035	0.00033	0.00038
	Max	0.00026	0.00026	0.00026	0.00025	0.00026	0.00025	0.00026	0.00026	0.00028	0.00027	0.00029	0.00026
Total Copper	Mean	0.00079	0.00066	0.00066	0.00075	0.00066	0.00066	0.00070	0.00074	0.00078	0.00082	0.00081	0.00078
	Min	0.00107	0.00123	0.00126	0.00131	0.00071	0.00072	0.00083	0.00086	0.00088	0.00094	0.00088	0.00102
	Max	0.00067	0.00061	0.00061	0.00060	0.00063	0.00061	0.00065	0.00066	0.00072	0.00069	0.00075	0.00067
Total Zinc	Mean	0.0095	0.0073	0.0073	0.0095	0.0081	0.0080	0.0084	0.0088	0.0092	0.0094	0.0096	0.0094
	Min	0.0100	0.0081	0.0082	0.0111	0.0087	0.0085	0.0097	0.0098	0.0099	0.0098	0.0098	0.0099
	Max	0.0082	0.0072	0.0072	0.0076	0.0078	0.0075	0.0079	0.0080	0.0086	0.0083	0.0090	0.0082

**TABLE 44: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WORST TREATED WATER DATA, MAIN METALS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Arsenic	Mean	0.00063	0.00070	0.00071	0.00061	0.00029	0.00028	0.00029	0.00031	0.00033	0.00042	0.00050	0.00050
	Min	0.00124	0.00187	0.00190	0.00184	0.00032	0.00030	0.00034	0.00035	0.00039	0.00054	0.00062	0.00093
	Max	0.00042	0.00047	0.00048	0.00032	0.00027	0.00026	0.00027	0.00028	0.00031	0.00033	0.00044	0.00037
Total Copper	Mean	0.00165	0.00177	0.00179	0.00159	0.00073	0.00069	0.00075	0.00080	0.00088	0.00113	0.00134	0.00133
	Min	0.00321	0.00479	0.00486	0.00475	0.00082	0.00077	0.00092	0.00096	0.00105	0.00144	0.00165	0.00242
	Max	0.00108	0.00116	0.00120	0.00079	0.00068	0.00063	0.00068	0.00070	0.00079	0.00085	0.00116	0.00094
Total Zinc	Mean	0.0107	0.0089	0.0090	0.0107	0.0083	0.0082	0.0086	0.0090	0.0096	0.0100	0.0104	0.0102
	Min	0.0126	0.0134	0.0135	0.0147	0.0090	0.0087	0.0100	0.0102	0.0104	0.0106	0.0109	0.0117
	Max	0.0088	0.0080	0.0081	0.0079	0.0079	0.0076	0.0080	0.0082	0.0089	0.0086	0.0096	0.0086
Prairie Creek at Park Boundary													
Total Arsenic	Mean	0.00059	0.00066	0.00067	0.00057	0.00028	0.00027	0.00029	0.00030	0.00032	0.00041	0.00048	0.00048
	Min	0.00117	0.00181	0.00183	0.00178	0.00031	0.00029	0.00033	0.00034	0.00038	0.00052	0.00059	0.00087
	Max	0.00041	0.00045	0.00046	0.00031	0.00027	0.00026	0.00027	0.00027	0.00030	0.00032	0.00042	0.00035
Total Copper	Mean	0.00156	0.00167	0.00169	0.00150	0.00072	0.00068	0.00073	0.00077	0.00085	0.00107	0.00127	0.00126
	Min	0.00304	0.00463	0.00469	0.00458	0.00080	0.00075	0.00089	0.00092	0.00101	0.00136	0.00155	0.00228
	Max	0.00103	0.00110	0.00114	0.00077	0.00067	0.00062	0.00067	0.00068	0.00077	0.00083	0.00111	0.00090
Total Zinc	Mean	0.0104	0.0088	0.0088	0.0103	0.0082	0.0081	0.0085	0.0088	0.0093	0.0097	0.0101	0.0099
	Min	0.0122	0.0132	0.0133	0.0144	0.0088	0.0086	0.0098	0.0099	0.0101	0.0103	0.0105	0.0114
	Max	0.0087	0.0079	0.0080	0.0078	0.0079	0.0076	0.0080	0.0081	0.0087	0.0085	0.0094	0.0085

**TABLE 45: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
PHOSPHOROUS CONCENTRATIONS USING 2010 DIAVIK SEWAGE EFFLUENT DATA**

Scenario	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Low Estimate	Mean	0.0026	0.0021	0.0022	0.0025	0.0022	0.0022	0.0023	0.0024	0.0025	0.0026	0.0027	0.0026
	Min	0.0032	0.0030	0.0033	0.0034	0.0024	0.0023	0.0026	0.0026	0.0027	0.0028	0.0028	0.0031
	Max	0.0023	0.0021	0.0021	0.0021	0.0022	0.0021	0.0022	0.0022	0.0023	0.0023	0.0025	0.0023
Best Estimate	Mean	0.0028	0.0022	0.0022	0.0026	0.0023	0.0022	0.0024	0.0025	0.0026	0.0028	0.0028	0.0027
	Min	0.0038	0.0035	0.0039	0.0040	0.0025	0.0024	0.0027	0.0028	0.0029	0.0031	0.0030	0.0034
	Max	0.0023	0.0021	0.0021	0.0021	0.0022	0.0021	0.0022	0.0023	0.0024	0.0024	0.0026	0.0023
High K	Mean	0.0029	0.0024	0.0024	0.0027	0.0024	0.0024	0.0025	0.0027	0.0028	0.0030	0.0029	0.0028
	Min	0.0041	0.0049	0.0050	0.0051	0.0026	0.0026	0.0030	0.0032	0.0033	0.0035	0.0032	0.0039
	Max	0.0024	0.0022	0.0022	0.0021	0.0022	0.0022	0.0023	0.0024	0.0026	0.0025	0.0027	0.0024
High K + PCAA	Mean	0.0029	0.0024	0.0024	0.0027	0.0024	0.0024	0.0025	0.0027	0.0028	0.0030	0.0029	0.0028
	Min	0.0041	0.0049	0.0050	0.0051	0.0026	0.0026	0.0030	0.0032	0.0033	0.0035	0.0032	0.0039
	Max	0.0024	0.0022	0.0022	0.0021	0.0022	0.0022	0.0023	0.0024	0.0026	0.0025	0.0027	0.0024

TABLE 46: HIGHEST CONCENTRATIONS OF SELECTED PARAMETERS IN BLENDED DISCHARGE (mg/L)

Scenario	Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Low Est Worst	As	0.0039	0.0028	0.0028	0.0034	0.0037	0.0035	0.0035	0.0035	0.0034	0.0039	0.0039	0.0040
Low Est 2011	Cd	0.00445	0.00004	0.00004	0.00439	0.00469	0.00469	0.00469	0.00469	0.00454	0.00446	0.00437	0.00459
Low Est Worst	Cu	0.0188	0.0072	0.0072	0.0173	0.0187	0.0180	0.0180	0.0180	0.0174	0.0187	0.0186	0.0192
Low Est 2010	Hg	0.00038	0.00001	0.00001	0.00037	0.00040	0.00040	0.00040	0.00040	0.00038	0.00038	0.00037	0.00039
Low Est 2011	Pb	0.057	0.002	0.002	0.060	0.062	0.064	0.064	0.064	0.063	0.057	0.056	0.058
Low Est 2010	Se	0.0098	0.0033	0.0033	0.0094	0.0100	0.0098	0.0098	0.0098	0.0096	0.0098	0.0097	0.0100
Low Est Worst	Zn	0.259	0.017	0.017	0.261	0.275	0.277	0.277	0.277	0.269	0.260	0.255	0.267
High K + PCAA 2011	NH3 N	0.686	0.690	0.690	0.676	0.656	0.638	0.623	0.637	0.624	0.679	0.683	0.684
High K + PCAA 2011	NO3 N	5.308	5.354	5.354	5.234	5.039	4.886	4.774	4.878	4.786	5.236	5.279	5.285
Low Est 2011	Total P	0.045	0.003	0.003	0.044	0.047	0.046	0.046	0.046	0.045	0.045	0.044	0.046
Low Est 2011	SO4	1203	470	470	1289	1185	1136	1136	1136	1105	1196	1190	1226
Low Est 2011	TDS	1682	700	700	1578	1688	1639	1639	1639	1595	1676	1664	1713

TABLE 47: PROPOSED WATER LICENCE LIMITS

Parameter	Existing P Ck Licence		MMER			Proposed P Ck Licence	
	Max. Average	Max. Grab	Monthly	Composite	Grab	Max. Average	Max. Grab
Ammonia N	5	10	-	-	-	2	4
Nitrate N	-	-	-	-	-	10	20
Total Arsenic	0.5	1	0.5	0.75	1.0	0.01	0.02
Total Cadmium	0.005	0.01	-	-	-	0.01	0.02
Total Copper	0.1	0.2	0.3	0.45	0.6	0.03	0.06
Total Lead	0.15	0.3	0.2	0.3	0.4	0.1	0.2
Total Mercury	0.02	0.04	-	-	-	0.0008	0.0016
Total Selenium	-	-	-	-	-	0.02	0.04
Total Zinc	0.3	0.6	0.5	0.75	1.0	0.5	1.0
Total Suspended Solids	15	30	15	22.5	30	15	30
Total Petroleum Hydrocarbons	5	10	-	-	-	5	10
Total Phosphorous	-	-	-	-	-	0.1	0.2
Sulphate	-	-	-	-	-	1500	2000
TDS	-	-	-	-	-	2000	3000
pH	6-9.5		6-9.5			6-9.5	

All concentrations mg/L except pH

**TABLE 48: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, MAIN METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00013	0.00008	0.00009	0.00011	0.00007	0.00006	0.00008	0.00009	0.00011	0.00013	0.00013	0.00012
	Min	0.00034	0.00042	0.00052	0.00064	0.00009	0.00009	0.00013	0.00014	0.00017	0.00019	0.00018	0.00029
	Max	0.00007	0.00005	0.00006	0.00004	0.00006	0.00005	0.00006	0.00007	0.00009	0.00008	0.00011	0.00007
Total Copper	Mean	0.00056	0.00041	0.00045	0.00049	0.00038	0.00036	0.00041	0.00045	0.00051	0.00055	0.00057	0.00054
	Min	0.00119	0.00143	0.00172	0.00207	0.00045	0.00043	0.00056	0.00060	0.00067	0.00074	0.00072	0.00104
	Max	0.00039	0.00033	0.00035	0.00030	0.00034	0.00031	0.00035	0.00037	0.00044	0.00040	0.00050	0.00039
Total Lead	Mean	0.00102	0.00052	0.00064	0.00078	0.00041	0.00036	0.00052	0.00065	0.00086	0.00098	0.00106	0.00094
	Min	0.00315	0.00393	0.00491	0.00610	0.00064	0.00056	0.00101	0.00115	0.00140	0.00162	0.00155	0.00265
	Max	0.00045	0.00024	0.00031	0.00016	0.00028	0.00017	0.00032	0.00037	0.00060	0.00049	0.00080	0.00043
Total Selenium	Mean	0.00134	0.00125	0.00127	0.00130	0.00123	0.00122	0.00125	0.00127	0.00131	0.00133	0.00135	0.00132
	Min	0.00174	0.00189	0.00207	0.00230	0.00127	0.00125	0.00134	0.00137	0.00141	0.00145	0.00144	0.00165
	Max	0.00123	0.00119	0.00121	0.00118	0.00120	0.00118	0.00121	0.00122	0.00126	0.00124	0.00130	0.00123
Total Zinc	Mean	0.0083	0.0059	0.0065	0.0072	0.0053	0.0051	0.0059	0.0065	0.0075	0.0081	0.0085	0.0079
	Min	0.0189	0.0228	0.0277	0.0336	0.0064	0.0061	0.0083	0.0090	0.0102	0.0113	0.0110	0.0164
	Max	0.0055	0.0044	0.0048	0.0041	0.0047	0.0041	0.0048	0.0051	0.0063	0.0057	0.0073	0.0054
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00012	0.00008	0.00009	0.00010	0.00007	0.00006	0.00008	0.00009	0.00011	0.00012	0.00012	0.00011
	Min	0.00031	0.00038	0.00047	0.00058	0.00009	0.00008	0.00012	0.00013	0.00015	0.00017	0.00017	0.00027
	Max	0.00007	0.00005	0.00006	0.00004	0.00005	0.00004	0.00006	0.00006	0.00008	0.00007	0.00010	0.00007
Total Copper	Mean	0.00053	0.00040	0.00043	0.00047	0.00037	0.00035	0.00040	0.00043	0.00049	0.00052	0.00054	0.00051
	Min	0.00110	0.00131	0.00158	0.00190	0.00043	0.00041	0.00053	0.00057	0.00063	0.00069	0.00067	0.00097
	Max	0.00038	0.00032	0.00034	0.00030	0.00033	0.00030	0.00034	0.00035	0.00042	0.00039	0.00047	0.00037
Total Lead	Mean	0.00092	0.00047	0.00058	0.00070	0.00037	0.00032	0.00047	0.00059	0.00077	0.00088	0.00095	0.00084
	Min	0.00284	0.00355	0.00444	0.00551	0.00057	0.00051	0.00091	0.00104	0.00126	0.00145	0.00139	0.00238
	Max	0.00040	0.00021	0.00028	0.00014	0.00025	0.00015	0.00028	0.00033	0.00054	0.00044	0.00072	0.00039
Total Selenium	Mean	0.00132	0.00124	0.00126	0.00128	0.00122	0.00121	0.00124	0.00126	0.00129	0.00131	0.00133	0.00131
	Min	0.00168	0.00182	0.00198	0.00219	0.00126	0.00124	0.00132	0.00134	0.00138	0.00142	0.00141	0.00160
	Max	0.00122	0.00119	0.00120	0.00117	0.00120	0.00118	0.00120	0.00121	0.00125	0.00123	0.00128	0.00122
Total Zinc	Mean	0.0078	0.0056	0.0061	0.0068	0.0051	0.0049	0.0056	0.0062	0.0071	0.0076	0.0080	0.0075
	Min	0.0174	0.0209	0.0253	0.0307	0.0061	0.0058	0.0078	0.0084	0.0095	0.0105	0.0102	0.0151
	Max	0.0053	0.0043	0.0046	0.0040	0.0045	0.0040	0.0047	0.0049	0.0060	0.0055	0.0069	0.0052

**TABLE 49: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, MAIN METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Cadmium	Mean	0.00019	0.00011	0.00012	0.00013	0.00009	0.00008	0.00011	0.00013	0.00016	0.00019	0.00018	0.00016
	Min	0.00056	0.00061	0.00075	0.00085	0.00013	0.00011	0.00018	0.00020	0.00024	0.00031	0.00026	0.00042
	Max	0.00010	0.00006	0.00007	0.00005	0.00007	0.00005	0.00008	0.00008	0.00012	0.00011	0.00015	0.00009
Total Copper	Mean	0.00075	0.00049	0.00054	0.00056	0.00044	0.00042	0.00049	0.00055	0.00064	0.00074	0.00071	0.00065
	Min	0.00184	0.00198	0.00240	0.00271	0.00055	0.00051	0.00071	0.00077	0.00090	0.00108	0.00094	0.00142
	Max	0.00047	0.00036	0.00039	0.00032	0.00038	0.00033	0.00040	0.00042	0.00053	0.00050	0.00060	0.00044
Total Lead	Mean	0.00165	0.00078	0.00095	0.00102	0.00062	0.00053	0.00077	0.00097	0.00130	0.00163	0.00154	0.00134
	Min	0.00532	0.00578	0.00719	0.00826	0.00097	0.00084	0.00151	0.00173	0.00216	0.00277	0.00229	0.00391
	Max	0.00072	0.00035	0.00045	0.00020	0.00042	0.00025	0.00047	0.00054	0.00091	0.00082	0.00116	0.00062
Total Selenium	Mean	0.00146	0.00129	0.00133	0.00132	0.00127	0.00125	0.00129	0.00133	0.00139	0.00146	0.00144	0.00140
	Min	0.00215	0.00224	0.00250	0.00271	0.00133	0.00131	0.00143	0.00147	0.00155	0.00167	0.00158	0.00189
	Max	0.00128	0.00121	0.00123	0.00118	0.00123	0.00120	0.00124	0.00125	0.00132	0.00130	0.00137	0.00126
Total Zinc	Mean	0.0115	0.0071	0.0080	0.0083	0.0064	0.0059	0.0071	0.0081	0.0098	0.0114	0.0109	0.0099
	Min	0.0297	0.0320	0.0390	0.0443	0.0081	0.0075	0.0108	0.0119	0.0140	0.0171	0.0146	0.0227
	Max	0.0069	0.0050	0.0055	0.0043	0.0054	0.0045	0.0056	0.0060	0.0078	0.0073	0.0091	0.0064
		Prairie Creek at Park Boundary											
Total Cadmium	Mean	0.00018	0.00010	0.00011	0.00012	0.00008	0.00008	0.00010	0.00012	0.00015	0.00018	0.00017	0.00015
	Min	0.00051	0.00055	0.00068	0.00078	0.00012	0.00010	0.00016	0.00018	0.00022	0.00028	0.00023	0.00038
	Max	0.00009	0.00006	0.00007	0.00005	0.00007	0.00005	0.00007	0.00008	0.00011	0.00010	0.00013	0.00008
Total Copper	Mean	0.00070	0.00046	0.00051	0.00053	0.00042	0.00040	0.00046	0.00052	0.00061	0.00069	0.00067	0.00061
	Min	0.00169	0.00181	0.00219	0.00248	0.00052	0.00048	0.00066	0.00072	0.00083	0.00100	0.00087	0.00131
	Max	0.00045	0.00035	0.00038	0.00031	0.00037	0.00032	0.00038	0.00040	0.00050	0.00048	0.00057	0.00042
Total Lead	Mean	0.00148	0.00070	0.00086	0.00092	0.00056	0.00048	0.00070	0.00087	0.00117	0.00147	0.00139	0.00120
	Min	0.00480	0.00522	0.00651	0.00748	0.00087	0.00076	0.00136	0.00156	0.00194	0.00250	0.00206	0.00353
	Max	0.00065	0.00031	0.00041	0.00018	0.00038	0.00023	0.00042	0.00049	0.00082	0.00073	0.00105	0.00056
Total Selenium	Mean	0.00143	0.00128	0.00131	0.00130	0.00125	0.00124	0.00128	0.00131	0.00137	0.00143	0.00141	0.00137
	Min	0.00205	0.00213	0.00237	0.00256	0.00131	0.00129	0.00140	0.00144	0.00151	0.00162	0.00154	0.00181
	Max	0.00127	0.00121	0.00122	0.00118	0.00122	0.00119	0.00123	0.00124	0.00130	0.00129	0.00135	0.00125
Total Zinc	Mean	0.0107	0.0068	0.0075	0.0078	0.0061	0.0057	0.0067	0.0076	0.0091	0.0106	0.0102	0.0093
	Min	0.0271	0.0292	0.0356	0.0405	0.0076	0.0070	0.0100	0.0110	0.0129	0.0157	0.0135	0.0208
	Max	0.0065	0.0048	0.0053	0.0042	0.0052	0.0044	0.0054	0.0057	0.0074	0.0069	0.0085	0.0060

**TABLE 50: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, MAIN METALS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00023	0.00018	0.00019	0.00018	0.00011	0.00013	0.00017	0.00021	0.00025	0.00028	0.00025	0.00022
	Min	0.00068	0.00112	0.00117	0.00126	0.00016	0.00018	0.00031	0.00034	0.00040	0.00046	0.00036	0.00059
	Max	0.00012	0.00010	0.00010	0.00006	0.00009	0.00007	0.00012	0.00013	0.00019	0.00016	0.00019	0.00012
Total Copper	Mean	0.00085	0.00071	0.00073	0.00070	0.00051	0.00055	0.00069	0.00078	0.00093	0.00102	0.00091	0.00082
	Min	0.00220	0.00351	0.00366	0.00392	0.00065	0.00071	0.00110	0.00119	0.00138	0.00156	0.00124	0.00194
	Max	0.00052	0.00046	0.00048	0.00034	0.00043	0.00039	0.00052	0.00055	0.00073	0.00064	0.00075	0.00052
Total Lead	Mean	0.00201	0.00153	0.00157	0.00148	0.00085	0.00097	0.00146	0.00177	0.00225	0.00255	0.00220	0.00190
	Min	0.00652	0.01092	0.01143	0.01231	0.00132	0.00153	0.00283	0.00315	0.00376	0.00437	0.00329	0.00566
	Max	0.00088	0.00068	0.00075	0.00029	0.00057	0.00045	0.00088	0.00099	0.00158	0.00128	0.00166	0.00088
Total Selenium	Mean	0.00153	0.00144	0.00144	0.00137	0.00131	0.00133	0.00142	0.00148	0.00157	0.00163	0.00156	0.00151
	Min	0.00238	0.00321	0.00330	0.00347	0.00140	0.00144	0.00168	0.00174	0.00186	0.00197	0.00177	0.00221
	Max	0.00131	0.00128	0.00129	0.00119	0.00126	0.00123	0.00131	0.00133	0.00145	0.00139	0.00146	0.00131
Total Zinc	Mean	0.0132	0.0109	0.0111	0.0107	0.0075	0.0081	0.0105	0.0121	0.0145	0.0160	0.0142	0.0127
	Min	0.0356	0.0575	0.0601	0.0644	0.0099	0.0109	0.0173	0.0189	0.0220	0.0250	0.0196	0.0314
	Max	0.0076	0.0067	0.0070	0.0047	0.0061	0.0055	0.0077	0.0082	0.0111	0.0096	0.0115	0.0077
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00021	0.00017	0.00017	0.00016	0.00011	0.00012	0.00016	0.00019	0.00023	0.00026	0.00023	0.00020
	Min	0.00062	0.00102	0.00106	0.00115	0.00015	0.00017	0.00028	0.00031	0.00037	0.00042	0.00033	0.00054
	Max	0.00011	0.00009	0.00010	0.00006	0.00008	0.00007	0.00011	0.00012	0.00017	0.00014	0.00018	0.00011
Total Copper	Mean	0.00079	0.00067	0.00068	0.00065	0.00048	0.00052	0.00065	0.00073	0.00086	0.00094	0.00085	0.00077
	Min	0.00201	0.00321	0.00335	0.00359	0.00061	0.00067	0.00102	0.00110	0.00127	0.00143	0.00114	0.00178
	Max	0.00049	0.00044	0.00046	0.00034	0.00041	0.00038	0.00049	0.00052	0.00068	0.00060	0.00070	0.00049
Total Lead	Mean	0.00181	0.00138	0.00142	0.00134	0.00076	0.00087	0.00131	0.00159	0.00203	0.00230	0.00198	0.00171
	Min	0.00589	0.00992	0.01039	0.01119	0.00119	0.00138	0.00255	0.00284	0.00339	0.00394	0.00297	0.00511
	Max	0.00079	0.00061	0.00067	0.00026	0.00052	0.00041	0.00079	0.00089	0.00142	0.00115	0.00150	0.00079
Total Selenium	Mean	0.00149	0.00141	0.00142	0.00135	0.00129	0.00131	0.00140	0.00145	0.00153	0.00158	0.00152	0.00147
	Min	0.00226	0.00302	0.00311	0.00326	0.00137	0.00141	0.00163	0.00168	0.00179	0.00189	0.00171	0.00211
	Max	0.00130	0.00126	0.00127	0.00119	0.00125	0.00123	0.00130	0.00132	0.00142	0.00136	0.00143	0.00130
Total Zinc	Mean	0.0122	0.0101	0.0103	0.0099	0.0071	0.0076	0.0098	0.0112	0.0134	0.0147	0.0131	0.0118
	Min	0.0325	0.0526	0.0549	0.0589	0.0092	0.0101	0.0159	0.0174	0.0201	0.0229	0.0180	0.0287
	Max	0.0072	0.0063	0.0066	0.0046	0.0058	0.0053	0.0072	0.0077	0.0104	0.0090	0.0107	0.0072

**TABLE 51: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, MAIN METALS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Cadmium	Mean	0.00151	0.00184	0.00186	0.00144	0.00021	0.00016	0.00022	0.00026	0.00038	0.00071	0.00102	0.00102
	Min	0.00389	0.00638	0.00648	0.00631	0.00030	0.00024	0.00041	0.00045	0.00061	0.00117	0.00149	0.00267
	Max	0.00072	0.00091	0.00098	0.00033	0.00015	0.00009	0.00015	0.00016	0.00027	0.00038	0.00079	0.00051
Total Copper	Mean	0.00467	0.00565	0.00573	0.00445	0.00078	0.00065	0.00084	0.00096	0.00130	0.00228	0.00321	0.00322
	Min	0.01176	0.01921	0.01950	0.01900	0.00108	0.00088	0.00139	0.00151	0.00199	0.00367	0.00461	0.00815
	Max	0.00233	0.00289	0.00309	0.00115	0.00061	0.00044	0.00061	0.00065	0.00099	0.00129	0.00254	0.00169
Total Lead	Mean	0.01483	0.01813	0.01841	0.01410	0.00177	0.00132	0.00196	0.00236	0.00350	0.00681	0.00994	0.00996
	Min	0.03868	0.06372	0.06468	0.06303	0.00275	0.00208	0.00380	0.00420	0.00582	0.01148	0.01463	0.02652
	Max	0.00698	0.00886	0.00953	0.00301	0.00120	0.00062	0.00119	0.00132	0.00246	0.00348	0.00767	0.00480
Total Selenium	Mean	0.00394	0.00457	0.00462	0.00381	0.00148	0.00140	0.00152	0.00159	0.00181	0.00243	0.00302	0.00303
	Min	0.00844	0.01316	0.01334	0.01303	0.00167	0.00154	0.00186	0.00194	0.00225	0.00331	0.00391	0.00615
	Max	0.00246	0.00282	0.00295	0.00172	0.00137	0.00126	0.00137	0.00140	0.00161	0.00180	0.00259	0.00205
Total Zinc	Mean	0.0769	0.0934	0.0947	0.0733	0.0121	0.0098	0.0130	0.0150	0.0207	0.0371	0.0526	0.0528
	Min	0.1954	0.3198	0.3246	0.3164	0.0169	0.0136	0.0222	0.0241	0.0322	0.0603	0.0760	0.1350
	Max	0.0379	0.0473	0.0506	0.0182	0.0092	0.0064	0.0092	0.0099	0.0155	0.0205	0.0414	0.0271
Prairie Creek at Park Boundary													
Total Cadmium	Mean	0.00138	0.00168	0.00171	0.00131	0.00019	0.00015	0.00021	0.00024	0.00034	0.00064	0.00093	0.00093
	Min	0.00363	0.00613	0.00623	0.00606	0.00028	0.00022	0.00037	0.00041	0.00055	0.00107	0.00136	0.00247
	Max	0.00066	0.00083	0.00089	0.00030	0.00014	0.00008	0.00014	0.00015	0.00025	0.00034	0.00072	0.00046
Total Copper	Mean	0.00428	0.00519	0.00527	0.00408	0.00073	0.00061	0.00078	0.00089	0.00120	0.00209	0.00294	0.00294
	Min	0.01101	0.01846	0.01875	0.01825	0.00099	0.00082	0.00128	0.00138	0.00182	0.00336	0.00422	0.00754
	Max	0.00213	0.00265	0.00283	0.00106	0.00058	0.00042	0.00057	0.00061	0.00092	0.00119	0.00232	0.00155
Total Lead	Mean	0.01352	0.01659	0.01685	0.01285	0.00159	0.00119	0.00177	0.00213	0.00315	0.00615	0.00902	0.00904
	Min	0.03616	0.06120	0.06219	0.06049	0.00248	0.00188	0.00343	0.00379	0.00526	0.01043	0.01334	0.02448
	Max	0.00631	0.00803	0.00865	0.00271	0.00108	0.00056	0.00107	0.00119	0.00222	0.00313	0.00694	0.00433
Total Selenium	Mean	0.00370	0.00428	0.00433	0.00357	0.00145	0.00137	0.00148	0.00155	0.00174	0.00231	0.00285	0.00285
	Min	0.00797	0.01269	0.01287	0.01255	0.00162	0.00150	0.00179	0.00186	0.00214	0.00312	0.00366	0.00576
	Max	0.00234	0.00266	0.00278	0.00166	0.00135	0.00125	0.00135	0.00137	0.00157	0.00174	0.00246	0.00197
Total Zinc	Mean	0.0704	0.0857	0.0870	0.0671	0.0112	0.0092	0.0121	0.0138	0.0189	0.0339	0.0481	0.0482
	Min	0.1829	0.3073	0.3122	0.3037	0.0156	0.0126	0.0203	0.0221	0.0294	0.0551	0.0695	0.1249
	Max	0.0346	0.0432	0.0462	0.0168	0.0086	0.0060	0.0086	0.0092	0.0143	0.0188	0.0377	0.0248

**TABLE 52: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER METALS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Arsenic	Mean	0.00021	0.00016	0.00017	0.00019	0.00015	0.00014	0.00016	0.00017	0.00019	0.00021	0.00021	0.00020
	Min	0.00042	0.00050	0.00060	0.00071	0.00017	0.00016	0.00021	0.00022	0.00025	0.00027	0.00026	0.00037
	Max	0.00015	0.00013	0.00014	0.00012	0.00014	0.00013	0.00014	0.00015	0.00017	0.00016	0.00019	0.00015
Total Mercury	Mean	0.000028	0.000024	0.000025	0.000026	0.000023	0.000023	0.000024	0.000025	0.000027	0.000028	0.000028	0.000027
	Min	0.000044	0.000051	0.000058	0.000067	0.000025	0.000024	0.000028	0.000029	0.000031	0.000033	0.000032	0.000041
	Max	0.000023	0.000022	0.000022	0.000021	0.000022	0.000021	0.000022	0.000023	0.000025	0.000024	0.000026	0.000023
		Prairie Creek at Park Boundary											
Total Arsenic	Mean	0.00020	0.00016	0.00017	0.00018	0.00015	0.00014	0.00016	0.00017	0.00019	0.00020	0.00020	0.00019
	Min	0.00039	0.00046	0.00055	0.00065	0.00017	0.00016	0.00020	0.00021	0.00023	0.00025	0.00025	0.00034
	Max	0.00015	0.00013	0.00014	0.00012	0.00013	0.00012	0.00014	0.00014	0.00016	0.00015	0.00018	0.00015
Total Mercury	Mean	0.000027	0.000024	0.000024	0.000025	0.000023	0.000022	0.000024	0.000024	0.000026	0.000027	0.000027	0.000026
	Min	0.000042	0.000048	0.000055	0.000063	0.000024	0.000024	0.000027	0.000028	0.000030	0.000031	0.000031	0.000039
	Max	0.000023	0.000022	0.000022	0.000021	0.000022	0.000021	0.000022	0.000022	0.000024	0.000023	0.000026	0.000023

**TABLE 53: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER METALS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Total Arsenic	Mean	0.00027	0.00019	0.00020	0.00021	0.00017	0.00016	0.00019	0.00021	0.00024	0.00027	0.00026	0.00024
	Min	0.00064	0.00068	0.00082	0.00093	0.00020	0.00019	0.00026	0.00028	0.00032	0.00038	0.00034	0.00050
	Max	0.00018	0.00014	0.00015	0.00013	0.00015	0.00013	0.00016	0.00016	0.00020	0.00019	0.00022	0.00017
Total Mercury	Mean	0.000033	0.000026	0.000027	0.000028	0.000025	0.000024	0.000026	0.000028	0.000030	0.000033	0.000032	0.000030
	Min	0.000061	0.000065	0.000076	0.000084	0.000027	0.000026	0.000032	0.000033	0.000037	0.000042	0.000038	0.000050
	Max	0.000026	0.000023	0.000023	0.000021	0.000023	0.000022	0.000024	0.000024	0.000027	0.000026	0.000029	0.000025
		Prairie Creek at Park Boundary											
Total Arsenic	Mean	0.00026	0.00018	0.00019	0.00020	0.00016	0.00016	0.00018	0.00020	0.00023	0.00025	0.00025	0.00023
	Min	0.00058	0.00063	0.00075	0.00085	0.00020	0.00018	0.00024	0.00026	0.00030	0.00036	0.00031	0.00046
	Max	0.00017	0.00014	0.00015	0.00013	0.00015	0.00013	0.00015	0.00016	0.00019	0.00018	0.00021	0.00016
Total Mercury	Mean	0.000031	0.000025	0.000027	0.000027	0.000024	0.000024	0.000025	0.000027	0.000029	0.000031	0.000031	0.000029
	Min	0.000057	0.000061	0.000071	0.000078	0.000027	0.000026	0.000031	0.000032	0.000035	0.000039	0.000036	0.000047
	Max	0.000025	0.000022	0.000023	0.000021	0.000023	0.000022	0.000023	0.000024	0.000026	0.000026	0.000028	0.000024

**TABLE 54: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER METALS, HIGH K ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Arsenic	Mean	0.00031	0.00026	0.00026	0.00026	0.00019	0.00020	0.00025	0.00028	0.00033	0.00036	0.00033	0.00030
	Min	0.00075	0.00119	0.00124	0.00133	0.00024	0.00026	0.00039	0.00042	0.00048	0.00054	0.00043	0.00067
	Max	0.00020	0.00018	0.00018	0.00014	0.00017	0.00015	0.00020	0.00021	0.00027	0.00024	0.00027	0.00020
Total Mercury	Mean	0.000036	0.000032	0.000032	0.000032	0.000027	0.000027	0.000031	0.000034	0.000038	0.000040	0.000037	0.000035
	Min	0.000071	0.000105	0.000109	0.000116	0.000030	0.000032	0.000042	0.000045	0.000049	0.000054	0.000046	0.000064
	Max	0.000027	0.000025	0.000026	0.000022	0.000024	0.000023	0.000027	0.000028	0.000032	0.000030	0.000033	0.000027
Prairie Creek at Park Boundary													
Total Arsenic	Mean	0.00029	0.00025	0.00025	0.00024	0.00018	0.00020	0.00024	0.00027	0.00031	0.00034	0.00030	0.00028
	Min	0.00069	0.00109	0.00114	0.00122	0.00023	0.00025	0.00036	0.00039	0.00044	0.00050	0.00040	0.00061
	Max	0.00019	0.00017	0.00018	0.00014	0.00016	0.00015	0.00019	0.00020	0.00025	0.00022	0.00026	0.00019
Total Mercury	Mean	0.000034	0.000031	0.000031	0.000030	0.000026	0.000027	0.000030	0.000032	0.000036	0.000038	0.000035	0.000033
	Min	0.000066	0.000097	0.000101	0.000107	0.000029	0.000031	0.000040	0.000042	0.000046	0.000051	0.000043	0.000060
	Max	0.000026	0.000025	0.000025	0.000022	0.000024	0.000023	0.000026	0.000027	0.000031	0.000029	0.000032	0.000026

**TABLE 55: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER METALS, HIGH K + PCAA ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Total Arsenic	Mean	0.00158	0.00190	0.00193	0.00150	0.00028	0.00024	0.00030	0.00034	0.00046	0.00078	0.00109	0.00109
	Min	0.00393	0.00641	0.00651	0.00634	0.00038	0.00032	0.00048	0.00052	0.00068	0.00124	0.00156	0.00273
	Max	0.00080	0.00099	0.00105	0.00041	0.00023	0.00017	0.00023	0.00024	0.00035	0.00045	0.00087	0.00058
Total Mercury	Mean	0.000136	0.000161	0.000164	0.000130	0.000034	0.000030	0.000035	0.000038	0.000047	0.000073	0.000097	0.000098
	Min	0.000322	0.000517	0.000525	0.000512	0.000041	0.000036	0.000050	0.000053	0.000065	0.000109	0.000134	0.000227
	Max	0.000074	0.000089	0.000094	0.000043	0.000029	0.000025	0.000029	0.000030	0.000039	0.000047	0.000080	0.000057
Prairie Creek at Park Boundary													
Total Arsenic	Mean	0.00145	0.00175	0.00178	0.00138	0.00027	0.00023	0.00028	0.00032	0.00042	0.00072	0.00100	0.00100
	Min	0.00369	0.00616	0.00626	0.00609	0.00035	0.00029	0.00045	0.00048	0.00063	0.00114	0.00143	0.00253
	Max	0.00073	0.00090	0.00096	0.00038	0.00022	0.00016	0.00021	0.00023	0.00033	0.00042	0.00080	0.00054
Total Mercury	Mean	0.000125	0.000149	0.000151	0.000120	0.000032	0.000029	0.000034	0.000037	0.000045	0.000068	0.000090	0.000090
	Min	0.000302	0.000497	0.000505	0.000492	0.000039	0.000035	0.000047	0.000049	0.000061	0.000101	0.000124	0.000211
	Max	0.000069	0.000083	0.000087	0.000041	0.000028	0.000024	0.000028	0.000029	0.000037	0.000044	0.000074	0.000054

**TABLE 56: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER PARAMETERS, LOW ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Ammonia	Mean	0.014	0.009	0.009	0.016	0.009	0.009	0.011	0.013	0.016	0.014	0.015	0.014
	Min	0.029	0.032	0.039	0.080	0.012	0.012	0.018	0.019	0.022	0.019	0.018	0.026
	Max	0.009	0.007	0.007	0.007	0.008	0.007	0.009	0.009	0.013	0.010	0.012	0.009
Nitrate	Mean	0.195	0.167	0.171	0.203	0.171	0.171	0.181	0.189	0.203	0.195	0.197	0.192
	Min	0.266	0.279	0.312	0.518	0.183	0.184	0.211	0.219	0.235	0.218	0.214	0.250
	Max	0.170	0.157	0.160	0.160	0.164	0.160	0.169	0.172	0.187	0.172	0.185	0.169
Total Phosphorous	Mean	0.0030	0.0025	0.0026	0.0028	0.0024	0.0023	0.0025	0.0026	0.0028	0.0029	0.0030	0.0029
	Min	0.0051	0.0058	0.0068	0.0080	0.0026	0.0025	0.0030	0.0031	0.0034	0.0036	0.0035	0.0046
	Max	0.0024	0.0022	0.0023	0.0021	0.0023	0.0022	0.0023	0.0023	0.0026	0.0025	0.0028	0.0024
Sulphate	Mean	82.4	75.3	77.0	79.1	73.7	73.0	75.3	77.2	80.1	81.8	83.0	81.3
	Min	113.0	124.2	138.2	155.2	77.0	75.9	82.3	84.4	87.8	91.0	90.0	105.8
	Max	74.2	71.2	72.2	70.1	71.8	70.3	72.4	73.1	76.5	74.8	79.3	74.1
TDS	Mean	286.4	277.9	279.9	282.4	275.9	275.0	277.8	280.1	283.6	285.7	287.2	285.0
	Min	323.4	336.9	353.9	374.4	279.9	278.6	286.3	288.8	293.0	296.8	295.6	314.6
	Max	276.6	272.9	274.1	271.5	273.6	271.8	274.3	275.2	279.2	277.3	282.7	276.3
		Prairie Creek at Park Boundary											
Ammonia	Mean	0.013	0.008	0.009	0.015	0.009	0.009	0.011	0.012	0.015	0.013	0.014	0.013
	Min	0.027	0.029	0.035	0.073	0.011	0.011	0.016	0.018	0.021	0.018	0.017	0.024
	Max	0.009	0.006	0.007	0.007	0.008	0.007	0.008	0.009	0.012	0.009	0.012	0.009
Nitrate	Mean	0.191	0.165	0.169	0.197	0.169	0.169	0.178	0.185	0.198	0.190	0.192	0.188
	Min	0.255	0.267	0.296	0.482	0.180	0.181	0.205	0.212	0.226	0.211	0.207	0.240
	Max	0.168	0.157	0.159	0.159	0.163	0.159	0.167	0.170	0.183	0.170	0.182	0.167
Total Phosphorous	Mean	0.0029	0.0025	0.0026	0.0027	0.0024	0.0023	0.0024	0.0026	0.0027	0.0029	0.0029	0.0028
	Min	0.0048	0.0055	0.0063	0.0074	0.0026	0.0025	0.0029	0.0030	0.0032	0.0034	0.0034	0.0043
	Max	0.0024	0.0022	0.0023	0.0021	0.0022	0.0021	0.0023	0.0023	0.0025	0.0024	0.0027	0.0024
Sulphate	Mean	81.0	74.6	76.1	77.9	73.1	72.5	74.6	76.3	78.9	80.4	81.5	79.9
	Min	108.5	118.7	131.4	146.8	76.1	75.1	80.9	82.7	85.8	88.7	87.8	102.0
	Max	73.6	70.9	71.8	69.9	71.5	70.1	71.9	72.6	75.6	74.2	78.2	73.5
TDS	Mean	284.7	277.0	278.8	281.0	275.2	274.4	276.9	279.0	282.2	284.0	285.3	283.4
	Min	318.0	330.2	345.6	364.2	278.8	277.6	284.6	286.8	290.6	294.0	292.9	310.1
	Max	275.8	272.5	273.6	271.3	273.2	271.5	273.7	274.5	278.2	276.4	281.3	275.6

**TABLE 57: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER PARAMETERS, BEST ESTIMATE MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Ammonia	Mean	0.019	0.010	0.011	0.017	0.011	0.011	0.013	0.015	0.019	0.019	0.018	0.016
	Min	0.044	0.045	0.054	0.094	0.014	0.014	0.021	0.023	0.027	0.027	0.023	0.034
	Max	0.011	0.007	0.008	0.007	0.009	0.008	0.010	0.011	0.015	0.012	0.015	0.010
Nitrate	Mean	0.216	0.175	0.181	0.210	0.178	0.177	0.190	0.200	0.218	0.216	0.213	0.205
	Min	0.338	0.340	0.387	0.585	0.194	0.193	0.228	0.238	0.259	0.256	0.238	0.291
	Max	0.179	0.161	0.165	0.161	0.169	0.163	0.174	0.178	0.197	0.183	0.197	0.175
Total Phosphorous	Mean	0.0036	0.0028	0.0029	0.0030	0.0026	0.0025	0.0027	0.0029	0.0033	0.0036	0.0035	0.0033
	Min	0.0072	0.0077	0.0090	0.0101	0.0029	0.0028	0.0035	0.0037	0.0041	0.0047	0.0042	0.0058
	Max	0.0027	0.0023	0.0024	0.0022	0.0024	0.0022	0.0024	0.0025	0.0029	0.0028	0.0031	0.0026
Sulphate	Mean	91.5	79.0	81.5	82.4	76.7	75.5	78.9	81.8	86.5	91.2	89.9	87.0
	Min	144.0	150.7	170.8	186.2	81.7	79.9	89.5	92.6	98.8	107.6	100.6	123.9
	Max	78.2	72.8	74.3	70.7	73.9	71.5	74.6	75.6	80.9	79.5	84.5	76.7
TDS	Mean	297.4	282.3	285.3	286.4	279.6	278.1	282.2	285.6	291.4	297.1	295.5	292.0
	Min	360.9	368.9	393.3	411.9	285.6	283.4	294.9	298.8	306.2	316.8	308.4	336.5
	Max	281.3	274.8	276.7	272.3	276.1	273.2	276.9	278.2	284.6	282.9	289.0	279.5
Prairie Creek at Park Boundary													
Ammonia	Mean	0.017	0.010	0.011	0.016	0.010	0.010	0.012	0.014	0.017	0.017	0.017	0.015
	Min	0.040	0.041	0.050	0.086	0.013	0.013	0.019	0.021	0.025	0.025	0.021	0.031
	Max	0.010	0.007	0.008	0.007	0.008	0.007	0.009	0.010	0.014	0.011	0.014	0.010
Nitrate	Mean	0.209	0.173	0.178	0.204	0.175	0.174	0.186	0.195	0.211	0.209	0.206	0.200
	Min	0.319	0.322	0.364	0.544	0.190	0.189	0.220	0.229	0.248	0.245	0.229	0.277
	Max	0.176	0.160	0.163	0.160	0.167	0.161	0.171	0.175	0.193	0.180	0.193	0.173
Total Phosphorous	Mean	0.0034	0.0027	0.0028	0.0029	0.0025	0.0025	0.0027	0.0028	0.0031	0.0034	0.0033	0.0032
	Min	0.0067	0.0071	0.0084	0.0093	0.0028	0.0027	0.0033	0.0035	0.0039	0.0044	0.0040	0.0054
	Max	0.0026	0.0023	0.0024	0.0022	0.0024	0.0022	0.0024	0.0025	0.0028	0.0027	0.0030	0.0025
Sulphate	Mean	89.1	77.9	80.2	81.0	75.9	74.7	77.8	80.4	84.7	88.9	87.7	85.1
	Min	136.7	142.7	161.0	175.0	80.4	78.7	87.3	90.2	95.7	103.6	97.4	118.4
	Max	77.2	72.3	73.7	70.5	73.3	71.1	73.9	74.9	79.6	78.4	82.9	75.8
TDS	Mean	294.5	280.9	283.7	284.7	278.5	277.1	280.9	284.0	289.1	294.3	292.8	289.7
	Min	352.0	359.3	381.5	398.4	283.9	282.0	292.3	295.8	302.5	312.1	304.5	329.9
	Max	280.1	274.2	275.9	272.0	275.4	272.8	276.1	277.3	283.1	281.5	287.0	278.5

**TABLE 58: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER PARAMETERS, HIGH K MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Prairie Creek at Harrison Creek											
Ammonia	Mean	0.021	0.015	0.016	0.021	0.012	0.013	0.018	0.020	0.026	0.025	0.022	0.020
	Min	0.052	0.080	0.083	0.120	0.017	0.018	0.030	0.032	0.039	0.038	0.030	0.046
	Max	0.012	0.010	0.010	0.008	0.010	0.009	0.013	0.013	0.020	0.015	0.018	0.012
Nitrate	Mean	0.228	0.200	0.202	0.226	0.186	0.190	0.214	0.224	0.252	0.246	0.234	0.224
	Min	0.377	0.510	0.527	0.712	0.206	0.214	0.274	0.281	0.317	0.308	0.271	0.349
	Max	0.184	0.172	0.174	0.164	0.174	0.169	0.188	0.191	0.221	0.198	0.214	0.184
Total Phosphorous	Mean	0.0040	0.0035	0.0035	0.0034	0.0028	0.0029	0.0034	0.0037	0.0042	0.0045	0.0041	0.0039
	Min	0.0084	0.0127	0.0132	0.0141	0.0033	0.0035	0.0048	0.0051	0.0057	0.0063	0.0052	0.0075
	Max	0.0029	0.0027	0.0027	0.0023	0.0026	0.0024	0.0029	0.0030	0.0035	0.0032	0.0036	0.0029
Sulphate	Mean	96.6	89.8	90.4	89.1	80.0	81.7	88.7	93.2	100.1	104.4	99.3	95.1
	Min	161.2	224.3	231.6	244.1	86.8	89.8	108.4	113.0	121.7	130.4	115.0	148.9
	Max	80.4	77.6	78.5	72.0	76.1	74.4	80.5	82.0	90.5	86.2	91.7	80.5
TDS	Mean	303.5	295.3	296.1	294.5	283.5	285.6	294.1	299.4	307.9	313.0	306.8	301.8
	Min	381.6	457.9	466.7	481.9	291.7	295.4	317.8	323.4	333.9	344.5	325.9	366.8
	Max	284.0	280.6	281.7	273.9	278.8	276.7	284.1	285.9	296.2	290.9	297.6	284.1
		Prairie Creek at Park Boundary											
Ammonia	Mean	0.019	0.014	0.015	0.019	0.012	0.012	0.017	0.019	0.024	0.023	0.021	0.019
	Min	0.048	0.073	0.076	0.110	0.015	0.017	0.028	0.029	0.036	0.035	0.028	0.042
	Max	0.011	0.009	0.010	0.008	0.009	0.008	0.012	0.013	0.018	0.014	0.017	0.011
Nitrate	Mean	0.220	0.195	0.196	0.218	0.182	0.186	0.207	0.216	0.242	0.237	0.226	0.216
	Min	0.355	0.477	0.493	0.661	0.200	0.208	0.262	0.268	0.300	0.293	0.259	0.330
	Max	0.180	0.170	0.172	0.163	0.172	0.167	0.184	0.187	0.214	0.193	0.207	0.181
Total Phosphorous	Mean	0.0038	0.0033	0.0034	0.0033	0.0027	0.0028	0.0033	0.0036	0.0040	0.0042	0.0039	0.0037
	Min	0.0078	0.0117	0.0122	0.0130	0.0032	0.0033	0.0045	0.0048	0.0053	0.0059	0.0049	0.0070
	Max	0.0028	0.0026	0.0026	0.0022	0.0025	0.0024	0.0028	0.0029	0.0034	0.0031	0.0035	0.0028
Sulphate	Mean	93.7	87.6	88.1	87.0	78.8	80.4	86.6	90.7	96.9	100.8	96.2	92.4
	Min	152.2	209.9	216.6	228.2	84.9	87.6	104.4	108.5	116.4	124.3	110.4	141.1
	Max	79.2	76.7	77.5	71.6	75.3	73.7	79.2	80.6	88.3	84.3	89.3	79.2
TDS	Mean	300.1	292.7	293.3	292.0	282.0	283.9	291.5	296.4	304.0	308.6	303.1	298.5
	Min	370.8	440.6	448.7	462.6	289.5	292.7	313.0	318.0	327.5	337.1	320.2	357.3
	Max	282.5	279.5	280.4	273.4	277.8	275.9	282.5	284.2	293.5	288.7	294.7	282.6

**TABLE 59: IN-STREAM CONCENTRATIONS IN PRAIRIE CREEK
WATER LICENCE LIMITS, OTHER PARAMETERS, HIGH K + PCAA MINE FLOWS**

Parameter	Creek Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prairie Creek at Harrison Creek													
Ammonia	Mean	0.109	0.129	0.131	0.106	0.019	0.016	0.022	0.024	0.034	0.054	0.075	0.075
	Min	0.272	0.441	0.448	0.450	0.026	0.022	0.037	0.039	0.053	0.086	0.107	0.189
	Max	0.054	0.066	0.070	0.027	0.014	0.010	0.015	0.016	0.026	0.030	0.059	0.039
Nitrate	Mean	0.649	0.748	0.757	0.639	0.216	0.202	0.230	0.243	0.293	0.386	0.489	0.489
	Min	1.434	2.253	2.284	2.296	0.253	0.232	0.306	0.315	0.384	0.542	0.644	1.035
	Max	0.385	0.442	0.464	0.254	0.195	0.174	0.198	0.202	0.250	0.270	0.411	0.313
Total Phosphorous	Mean	0.0165	0.0198	0.0200	0.0158	0.0037	0.0033	0.0039	0.0043	0.0054	0.0087	0.0117	0.0118
	Min	0.0399	0.0644	0.0654	0.0638	0.0047	0.0040	0.0057	0.0061	0.0077	0.0132	0.0163	0.0280
	Max	0.0088	0.0107	0.0113	0.0049	0.0032	0.0026	0.0032	0.0033	0.0044	0.0054	0.0095	0.0067
Sulphate	Mean	280.2	327.6	331.6	269.8	93.2	86.8	96.0	101.7	118.0	165.3	210.2	210.5
	Min	621.8	980.4	994.2	970.5	107.3	97.7	122.3	128.0	151.2	232.3	277.4	447.7
	Max	167.8	194.7	204.4	111.0	85.0	76.7	84.9	86.8	103.1	117.6	177.6	136.6
TDS	Mean	525.5	582.7	587.6	512.9	299.4	291.7	302.8	309.7	329.4	386.6	440.9	441.2
	Min	938.4	1371.9	1388.6	1360.0	316.5	304.9	334.6	341.5	369.6	467.6	522.1	728.0
	Max	389.6	422.2	433.9	320.9	289.5	279.5	289.4	291.7	311.5	329.0	401.5	352.0
Prairie Creek at Park Boundary													
Ammonia	Mean	0.099	0.119	0.120	0.097	0.017	0.015	0.020	0.022	0.031	0.049	0.069	0.069
	Min	0.254	0.424	0.431	0.432	0.024	0.020	0.034	0.036	0.049	0.079	0.098	0.174
	Max	0.049	0.060	0.064	0.024	0.013	0.009	0.014	0.015	0.024	0.027	0.054	0.036
Nitrate	Mean	0.605	0.697	0.706	0.595	0.209	0.197	0.222	0.234	0.279	0.364	0.457	0.457
	Min	1.351	2.169	2.202	2.209	0.243	0.224	0.290	0.299	0.361	0.506	0.600	0.967
	Max	0.362	0.415	0.435	0.244	0.190	0.172	0.193	0.197	0.240	0.259	0.386	0.297
Total Phosphorous	Mean	0.0152	0.0183	0.0185	0.0146	0.0035	0.0032	0.0037	0.0041	0.0051	0.0080	0.0108	0.0108
	Min	0.0374	0.0620	0.0629	0.0613	0.0044	0.0038	0.0053	0.0057	0.0071	0.0122	0.0151	0.0260
	Max	0.0082	0.0099	0.0105	0.0046	0.0030	0.0025	0.0030	0.0032	0.0042	0.0051	0.0088	0.0062
Sulphate	Mean	261.5	305.5	309.2	251.9	90.6	84.9	93.2	98.3	113.0	156.0	197.0	197.3
	Min	585.7	944.3	958.5	934.2	103.4	94.7	116.9	122.1	143.2	217.3	258.9	418.5
	Max	158.3	182.9	191.7	106.7	83.3	75.8	83.2	84.9	99.6	112.7	167.2	129.9
TDS	Mean	502.9	556.1	560.6	491.3	296.4	289.4	299.4	305.7	323.4	375.4	424.9	425.3
	Min	894.9	1328.3	1345.4	1316.0	311.7	301.3	328.1	334.4	359.9	449.5	499.7	692.7
	Max	378.1	407.8	418.5	315.8	287.5	278.5	287.3	289.4	307.2	323.1	389.0	343.9

**TABLE 60: IN-STREAM METAL CONCENTRATIONS IN PRAIRIE CREEK
AFTER VERTICAL MIXING (mg/L) - 2011 TREATED WATER QUALITY**

Parameter	Discharge Scenario	Open Water			Ice Cover			
		Max	Mean	Min	Max	Mean	Min	Min
Month		June	July	October	April	December	March	April
Discharge m³/sec		38.2	*10.2	1.57	4.43	*0.71	0.039	0.080
Dilutions	Low	279.4	100.4	51.6	349.9	65.8	19.1	14.6
	Best	185.6	66.6	29.6	267.5	45.7	12.7	10.5
	High	100.4	34.7	18.4	181.7	31.8	7.6	6.7
	Extreme	73.2	25.5	6.4	16.1	5.3	0.5	0.5
Total Arsenic	Low	0.00012	0.00013	0.00013	0.00012	0.00014	0.00011	0.00015
	Best	0.00012	0.00013	0.00013	0.00012	0.00014	0.00012	0.00015
	High	0.00012	0.00013	0.00013	0.00012	0.00014	0.00012	0.00015
	Extreme	0.00012	0.00013	0.00014	0.00012	0.00015	0.00017	0.00018
Total Cadmium	Low	0.000046	0.000076	0.000087	0.000046	0.000098	0.000030	0.000086
	Best	0.000046	0.000076	0.000086	0.000046	0.000098	0.000031	0.000085
	High	0.000046	0.000075	0.000085	0.000046	0.000098	0.000031	0.000083
	Extreme	0.000046	0.000075	0.000082	0.000046	0.000093	0.000037	0.000059
Total Copper	Low	0.00031	0.00040	0.00043	0.00031	0.00046	0.00028	0.00046
	Best	0.00031	0.00040	0.00044	0.00031	0.00047	0.00029	0.00047
	High	0.00031	0.00040	0.00044	0.00031	0.00047	0.00031	0.00048
	Extreme	0.00031	0.00041	0.00047	0.00033	0.00051	0.00055	0.00062
Total Lead	Low	0.00024	0.00064	0.00075	0.00023	0.00088	0.00009	0.00125
	Best	0.00024	0.00064	0.00077	0.00023	0.00089	0.00013	0.00126
	High	0.00024	0.00067	0.00079	0.00024	0.00090	0.00021	0.00129
	Extreme	0.00025	0.00068	0.00088	0.00032	0.00104	0.00114	0.00158
Total Mercury	Low	0.0000212	0.0000234	0.0000242	0.0000212	0.0000252	0.0000195	0.0000235
	Best	0.0000212	0.0000234	0.0000240	0.0000212	0.0000251	0.0000193	0.0000232
	High	0.0000212	0.0000232	0.0000238	0.0000212	0.0000249	0.0000188	0.0000226
	Extreme	0.0000211	0.0000231	0.0000226	0.0000206	0.0000232	0.0000133	0.0000150
Total Selenium	Low	0.00116	0.00118	0.00120	0.00116	0.00119	0.00123	0.00126
	Best	0.00116	0.00119	0.00122	0.00116	0.00121	0.00127	0.00130
	High	0.00117	0.00121	0.00125	0.00116	0.00122	0.00134	0.00137
	Extreme	0.00118	0.00122	0.00139	0.00125	0.00143	0.00225	0.00225
Total Zinc	Low	0.0043	0.0059	0.0065	0.0043	0.0071	0.0033	0.0072
	Best	0.0043	0.0059	0.0064	0.0043	0.0071	0.0033	0.0071
	High	0.0043	0.0059	0.0064	0.0043	0.0070	0.0032	0.0069
	Extreme	0.0042	0.0059	0.0060	0.0042	0.0066	0.0028	0.0043

* Means for the period, not the month

**TABLE 61: IN-STREAM NON-METAL PARAMETER CONCENTRATIONS
IN PRAIRIE CREEK AFTER VERTICAL MIXING (mg/L)**

Parameter	Discharge Scenario	Open Water			Ice Cover			
		Max	Mean	Min	Max	Mean	Min	Min
Month		June	July	October	April	December	March	April
Discharge m³/sec		38.2	*10.2	1.57	4.43	*0.71	0.039	0.080
Dilutions	Low	279.4	100.4	51.6	349.9	65.8	19.1	14.6
	Best	185.6	66.6	29.6	267.5	45.7	12.7	10.5
	High	100.4	34.7	18.4	181.7	31.8	7.6	6.7
	Extreme	73.2	25.5	6.4	16.1	5.3	0.5	0.5
Ammonia	Low	0.007	0.009	0.017	0.006	0.014	0.039	0.032
	Best	0.008	0.013	0.026	0.007	0.019	0.055	0.048
	High	0.011	0.022	0.039	0.008	0.025	0.085	0.078
	Extreme	0.014	0.028	0.097	0.044	0.113	0.462	0.455
Nitrate	Low	0.161	0.181	0.237	0.158	0.216	0.409	0.352
	Best	0.171	0.207	0.308	0.162	0.249	0.530	0.474
	High	0.195	0.274	0.407	0.171	0.297	0.755	0.703
	Extreme	0.214	0.324	0.843	0.447	0.965	3.619	3.567
Total Phosphorous	Low	0.0022	0.0024	0.0026	0.0022	0.0027	0.0021	0.0026
	Best	0.0022	0.0024	0.0026	0.0022	0.0027	0.0021	0.0026
	High	0.0022	0.0025	0.0026	0.0022	0.0027	0.0022	0.0026
	Extreme	0.0022	0.0025	0.0027	0.0022	0.0028	0.0029	0.0031
Sulphate	Low	71.8	78.5	84.9	71.5	85.3	88.0	92.8
	Best	72.5	80.5	90.3	71.8	87.9	97.3	102.0
	High	74.4	85.6	97.7	72.5	91.4	114.7	119.3
	Extreme	75.8	89.5	130.6	93.8	142.0	336.0	335.6
TDS	Low	273.9	282.4	289.7	273.5	290.6	290.4	299.4
	Best	274.6	284.5	295.4	273.9	293.3	300.5	309.1
	High	276.6	290.0	303.3	274.6	297.1	319.1	327.5
	Extreme	278.2	294.1	338.4	297.4	351.0	556.3	557.4

* Means for the period, not the month

**TABLE 62: IN-STREAM METAL CONCENTRATIONS IN PRAIRIE CREEK
AFTER VERTICAL MIXING (mg/L) - WORST TREATED WATER QUALITY**

Parameter	Discharge Scenario	Open Water			Ice Cover			
		Max	Mean	Min	Max	Mean	Min	Min
Month		June	July	October	April	December	March	April
Discharge m³/sec		38.2	*10.2	1.57	4.43	*0.71	0.039	0.080
Dilutions	Low	279.4	100.4	51.6	349.9	65.8	19.1	14.6
	Best	185.6	66.6	29.6	267.5	45.7	12.7	10.5
	High	100.4	34.7	18.4	181.7	31.8	7.6	6.7
	Extreme	73.2	25.5	6.4	16.1	5.3	0.5	0.5
Total Arsenic	Low	0.00012	0.00014	0.00017	0.00012	0.00017	0.00024	0.00024
	Best	0.00013	0.00016	0.00021	0.00012	0.00018	0.00031	0.00031
	High	0.00014	0.00019	0.00026	0.00013	0.00021	0.00042	0.00042
	Extreme	0.00015	0.00022	0.00049	0.00027	0.00055	0.00190	0.00189
Total Cadmium	Low	0.000046	0.000076	0.000087	0.000046	0.000098	0.000030	0.000086
	Best	0.000046	0.000076	0.000086	0.000046	0.000098	0.000031	0.000085
	High	0.000046	0.000075	0.000085	0.000046	0.000098	0.000031	0.000083
	Extreme	0.000046	0.000075	0.000082	0.000046	0.000093	0.000037	0.000059
Total Copper	Low	0.00032	0.00043	0.00054	0.00032	0.00054	0.00061	0.00071
	Best	0.00034	0.00047	0.00063	0.00032	0.00059	0.00077	0.00087
	High	0.00037	0.00056	0.00076	0.00034	0.00065	0.00107	0.00116
	Extreme	0.00039	0.00062	0.00133	0.00070	0.00152	0.00489	0.00489
Total Lead	Low	0.00024	0.00064	0.00075	0.00023	0.00088	0.00009	0.00125
	Best	0.00024	0.00064	0.00077	0.00023	0.00089	0.00013	0.00126
	High	0.00024	0.00067	0.00079	0.00024	0.00090	0.00021	0.00129
	Extreme	0.00025	0.00068	0.00088	0.00032	0.00104	0.00114	0.00158
Total Mercury	Low	0.0000213	0.0000236	0.0000245	0.0000213	0.0000254	0.0000195	0.0000237
	Best	0.0000213	0.0000236	0.0000243	0.0000213	0.0000253	0.0000193	0.0000234
	High	0.0000212	0.0000234	0.0000240	0.0000213	0.0000252	0.0000188	0.0000228
	Extreme	0.0000212	0.0000233	0.0000228	0.0000207	0.0000234	0.0000133	0.0000151
Total Selenium	Low	0.00118	0.00123	0.00127	0.00118	0.00128	0.00126	0.00134
	Best	0.00118	0.00125	0.00130	0.00118	0.00130	0.00131	0.00138
	High	0.00119	0.00127	0.00134	0.00118	0.00131	0.00140	0.00147
	Extreme	0.00120	0.00129	0.00151	0.00130	0.00158	0.00258	0.00260
Total Zinc	Low	0.0043	0.0060	0.0067	0.0043	0.0073	0.0040	0.0077
	Best	0.0043	0.0061	0.0069	0.0043	0.0073	0.0043	0.0080
	High	0.0044	0.0062	0.0071	0.0043	0.0074	0.0049	0.0084
	Extreme	0.0044	0.0064	0.0080	0.0050	0.0089	0.0124	0.0138

* Means for the period, not the month