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## 9. Conversions

Length/Area	Multiply	by	To Obtain
metres 3.281 000 feet hectares 2.471 054 acres centimetre 0.032 808 feet centimetre 0.393 701 inches acres 0.404 686 hectares inches 25.400 000 millimetres kilometre 0.621 370 miles (statute) square feet (ft²) 0.092 903 metres (m²) metres (m²) 10.763 910 square feet (ft²) metres (m²) 0.000 001 kilometres (km²)  Concentration grains/gallon (UK) 14.270 050 ppm ppm 0.998 859 mg/L ng/L 1.001 142 ppm  Volume (capacity) acre feet 0.028 317 cubic metres cubic feet 0.028 317 cubic metres cubic metres 35.314 667 cubic feet cubic metres 219.969 248 gallons (UK) cubic metres 264.172 050 gallons (UK) cubic metres 1000.000 000 litres gallons (UK) 0.004 546 cubic metres imperial gallons 4.546 000 litres  Rate litres per minute 0.219 974 ipgm litres per minute 1.440 000 cubic metres/day (m³/day) igpm 6.546 300 cubic metres/day (m³/day) cubic metres/day (m³/day) 0.152 759 igpm  Pressure psi 6.894 757 kpa kpa 0.145 038 psi  Miscellaneous Celsius F° = 9/5 (C° + 32) Fahrenheit C° = (F°-32) * 5/9 Celsius	Length/Area		
hectares	feet	0.304 785	metres
centimetre         0.032 808         feet           centimetre         0.393 701         inches           acres         0.404 686         hectares           inches         25.400 000         millimetres           miles         1.609 344         kilometres           kilometre         0.621 370         miles (statute)           square feet (ft²)         0.092 903         metres (m²)           metres (m²)         10.763 910         square feet (ft²)           metres (m²)         0.000 001         kilometres (km²)           Concentration           grains/gallon (UK)         14.270 050         ppm           ppm         0.998 859         mg/L           Mg/L           yolume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         219.969 248         gallons (UK)           cubic metres         264.172 050         gallons (US)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres	metres	3.281 000	feet
centimetre         0.393 701         inches           acres         0.404 686         hectares           inches         25.400 000         millimetres           miles         1.609 344         kilometres           kilometre         0.621 370         miles (statute)           square feet (ft²)         0.092 903         metres (m²)           metres (m²)         10.763 910         square feet (ft²)           metres (m²)         0.000 001         kilometres (km²)           metres (m²)         0.000 001         kilometres (km²)           Concentration           grains/gallon (UK)         14.270 050         ppm           ppm         0.998 859         mg/L           mg/L         1.001 142         ppm           Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic metres         35.314 667         cubic metres           cubic metres         219.969 248         gallons (UK)           cubic metres         219.969 248         gallons (US liquid)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons <td< td=""><td>hectares</td><td>2.471 054</td><td>acres</td></td<>	hectares	2.471 054	acres
acres	centimetre	0.032 808	feet
inches	centimetre	0.393 701	inches
miles         1.609 344         kilometres           kilometre         0.621 370         miles (statute)           square feet (ft²)         0.092 903         metres (m²)           metres (m²)         10.763 910         square feet (ft²)           metres (m²)         0.000 001         kilometres (km²)           Concentration           grains/gallon (UK)         14.270 050         ppm           ppm         0.998 859         mg/L           mg/L         1.001 142         ppm           Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         219.969 248         gallons (UK)           cubic metres         264.172 050         gallons (UK)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres           Rate         litres per minute         1.440 000         cubic metres/day (m³/day)           igpm         6.546 300         cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759         igpm	acres	0.404 686	hectares
kilometre	inches	25.400 000	millimetres
square feet (ft²)         0.092 903         metres (m²)           metres (m²)         10.763 910         square feet (ft²)           metres (m²)         0.000 001         kilometres (km²)           Concentration           grains/gallon (UK)         14.270 050         ppm           ppm         0.998 859         mg/L           ppm         1.001 142         ppm           Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         35.314 667         cubic metres           cubic metres         219.969 248         gallons (UK)           cubic metres         264.172 050         gallons (US liquid)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres           Rate           litres per minute         0.219 974         ipgm           litres per minute         1.440 000         cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759         igpm           Pressure	miles	1.609 344	kilometres
metres (m²) 10.763 910 square feet (ft²) metres (m²) 0.000 001 kilometres (km²)  Concentration grains/gallon (UK) 14.270 050 ppm ppm 0.998 859 mg/L mg/L 1.001 142 ppm  Volume (capacity) acre feet 1233.481 838 cubic metres cubic feet 0.028 317 cubic metres cubic metres 35.314 667 cubic feet cubic metres 219.969 248 gallons (UK) cubic metres 264.172 050 gallons (US liquid) cubic metres 1000.000 000 litres gallons (UK) 0.004 546 cubic metres imperial gallons 4.546 000 litres  Rate litres per minute 0.219 974 ipgm litres per minute 1.440 000 cubic metres/day (m³/day) igpm 6.546 300 cubic metres/day (m³/day) cubic metres/day (m³/day) 0.152 759 igpm  Pressure psi 6.894 757 kpa kpa 0.145 038 psi  Miscellaneous Celsius F° = 9/5 (C° + 32) Fahrenheit Fahrenheit C° = (F°- 32) * 5/9 Celsius	kilometre	0.621 370	miles (statute)
Concentration         grains/gallon (UK)         14.270 050 ppm           ppm         0.998 859 mg/L           mg/L         1.001 142 ppm           Volume (capacity)         acre feet         1233.481 838 cubic metres           cubic feet         0.028 317 cubic metres           cubic metres         35.314 667 cubic feet           cubic metres         219.969 248 gallons (UK)           cubic metres         264.172 050 gallons (US liquid)           cubic metres         1000.000 000 litres           gallons (UK)         0.004 546 cubic metres           imperial gallons         4.546 000 litres           Rate         litres per minute         0.219 974 ipgm           litres per minute         0.219 974 ipgm           litres per minute         0.440 000 cubic metres/day (m³/day)           igpm         6.546 300 cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759 igpm           Pressure           psi         6.894 757 kpa         kpa           kpa         0.145 038 psi           Miscellaneous           Celsius         F° = 9/5 (C° + 32) Fahrenheit         Fahrenheit           C° = (F°- 32) * 5/9         Celsius	square feet (ft²)	0.092 903	metres (m²)
Concentration           grains/gallon (UK)         14.270 050 ppm           ppm         0.998 859 mg/L           mg/L         1.001 142 ppm           Volume (capacity)           acre feet         1233.481 838 cubic metres           cubic feet         0.028 317 cubic metres           cubic metres         35.314 667 cubic feet           cubic metres         219.969 248 gallons (UK)           cubic metres         264.172 050 gallons (US liquid)           cubic metres         1000.000 000 litres           gallons (UK)         0.004 546 cubic metres           imperial gallons         4.546 000 litres           Rate           litres per minute         0.219 974 ipgm           litres per minute         1.440 000 cubic metres/day (m³/day)           igpm         6.546 300 cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759 igpm           Pressure           psi         6.894 757 kpa           kpa         0.145 038 psi           Miscellaneous           Celsius         F° = 9/5 (C° + 32) Fahrenheit           Fahrenheit         C° = (F°- 32) * 5/9 Celsius	metres (m²)	10.763 910	square feet (ft²)
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grains/gallon (UK) 14.270 050 ppm			
ppm         0.998 859         mg/L           mg/L         1.001 142         ppm           Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         35.314 667         cubic feet           cubic metres         219.969 248         gallons (UK)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres           Rate           litres per minute         0.219 974         ipgm           litres per minute         1.440 000         cubic metres/day (m³/day)           igpm         6.546 300         cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759         igpm           Pressure           psi         6.894 757         kpa           kpa         0.145 038         psi           Miscellaneous           Celsius         F° = 9/5 (C° + 32)         Fahrenheit           Fahrenheit	Concentration		
Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         35.314 667         cubic feet           cubic metres         219.969 248         gallons (UK)           cubic metres         264.172 050         gallons (US liquid)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres           Rate           litres per minute         0.219 974         ipgm           litres per minute         1.440 000         cubic metres/day (m³/day)           igpm         6.546 300         cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759         igpm           Pressure           psi         6.894 757         kpa           kpa         0.145 038         psi           Miscellaneous           Celsius         F° = 9/5 (C° + 32)         Fahrenheit           Fahrenheit         C° = (F°- 32) * 5/9         Celsius	grains/gallon (UK)	14.270 050	ppm
Volume (capacity)           acre feet         1233.481 838         cubic metres           cubic feet         0.028 317         cubic metres           cubic metres         35.314 667         cubic feet           cubic metres         219.969 248         gallons (UK)           cubic metres         264.172 050         gallons (US liquid)           cubic metres         1000.000 000         litres           gallons (UK)         0.004 546         cubic metres           imperial gallons         4.546 000         litres           Rate           litres per minute         0.219 974         ipgm           litres per minute         1.440 000         cubic metres/day (m³/day)           igpm         6.546 300         cubic metres/day (m³/day)           cubic metres/day (m³/day)         0.152 759         igpm           Pressure           psi         6.894 757         kpa           kpa         0.145 038         psi           Miscellaneous           Celsius         F° = 9/5 (C° + 32)         Fahrenheit           Fahrenheit         C° = (F°- 32) * 5/9         Celsius	ppm	0.998 859	mg/L
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psi 6.894 757 kpa kpa 0.145 038 psi			
kpa 0.145 038 psi	Pressure		
MiscellaneousCelsius $F^{\circ} = 9/5 (C^{\circ} + 32)$ FahrenheitFahrenheit $C^{\circ} = (F^{\circ} - 32) * 5/9$ Celsius	psi	6.894 757	kpa
Celsius $F^{\circ} = 9/5 (C^{\circ} + 32)$ Fahrenheit Fahrenheit $C^{\circ} = (F^{\circ} - 32) * 5/9$ Celsius	kpa	0.145 038	psi
Celsius $F^{\circ} = 9/5 (C^{\circ} + 32)$ Fahrenheit Fahrenheit $C^{\circ} = (F^{\circ} - 32) * 5/9$ Celsius			
Fahrenheit $C^{\circ} = (F^{\circ}-32) * 5/9$ Celsius			
			Fahrenheit
0.017.450	Fahrenheit C°		Celsius
Ü	degrees	0.017 453	radians
US\$ 0.000 000 Canadian\$	US\$	0.000 000	Canadian\$



## 10. Glossary

AAFC-PFRA Prairie Farm Rehabilitation Administration arm of Agriculture and Agri-Food Canada

Aquifer a formation, group of formations, or part of a formation that contains saturated

permeable rocks capable of transmitting groundwater to water wells or springs in

economical quantities

Aquitard a confining bed that retards but does not prevent the flow of water to or from an

adjacent aquifer

Available Drawdown in a confined aquifer, the distance between the non-pumping water level and the top

of the aquifer

in an unconfined aquifer (water table aquifer), two thirds of the saturated thickness of

the aquifer

Borehole includes all "work types" except springs

Completion Interval see diagram

Dewatering the removal of groundwater from an aquifer for

purposes other than use

Dfb one of the Köppen climate classifications; a Dfb

climate consists of long, cool summers and severe winters. The mean monthly temperature drops below -3° C in the coolest month, and exceeds 10°

C in the warmest month.

Evapotranspiration a combination of evaporation from open bodies of water, evaporation from soil

surfaces, and transpiration from the soil by plants (Freeze and Cherry, 1979)

Facies the aspect or character of the sediment within beds of one and the same age

(Pettijohn, 1957)

Fluvial produced by the action of a stream or river

Hydraulic Conductivity the rate of flow of water through a unit cross-section under a unit hydraulic gradient;

units are length/time

km kilometre

Kriging a geo-statistical method for gridding irregularly-spaced data (Cressie, 1990)

Lacustrine fine-grained sedimentary deposits associated with a lake environment and not

including shore-line deposits

Lithology description of rock material

Lsd Legal Subdivision

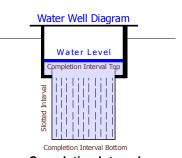
m metres

mm millimetres

m²/day metres squared per day

m³ cubic metres

m³/day cubic metres per day



Completion Interval



M.D. of Bonnyville, Part of the Churchill and North Saskatchewan River Basins Regional Groundwater Assessment, Parts of Tp 055 to 066, R 01 to 10, W4M

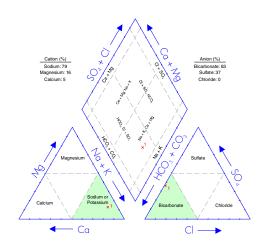
mg/L milligrams per litre

Median the value at the center of an ordered range of numbers

Obs WW Observation Water Well

Piper tri-linear diagram a method that permits the

cation and major anion compositions of single or multiple samples to represented on a single graph. This presentation allows groupings or trends in the data to be identified. From the Piper tri-linear diagram, it can be seen that the groundwater from this sample water well is a sodium-bicarbonate-type. The type chemical has been determined by graphically calculating the dominant cation and anion. For a more detailed explanation, please refer to Freeze and Cherry, 1979



Piper Tri-Linear Diagram

Rock earth material below the root zone

Surficial Deposits includes all sediments above the bedrock

Thalweg the line connecting the lowest points along a stream bed or valley; *longitudinal profile* 

Till a sediment deposited directly by a glacier that is unsorted and consisting of any grain

size ranging from clay to boulders

Transmissivity the rate at which water is transmitted through a unit width of an aquifer under a unit

hydraulic gradient: a measure of the ease with which groundwater can move through

the aquifer

Apparent Transmissivity: the value determined from a summary of aquifer test data,

usually involving only two water-level readings

Effective Transmissivity: the value determined from late pumping and/or late recovery

water-level data from an aquifer test

Aquifer Transmissivity: the value determined by multiplying the hydraulic conductivity

of an aquifer by the thickness of the aquifer

Water Well a hole in the ground for the purpose of obtaining groundwater; "work type" as defined

by AENV includes test hole, chemistry, deepened, well inventory, federal well survey,

reconditioned, reconstructed, new, old well-test

Yield a regional analysis term referring to the rate a properly completed water well could be

pumped, if fully penetrating the aquifer

Apparent Yield: based mainly on apparent transmissivity

Long-Term Yield: based on effective transmissivity

AENV Alberta Environment

AMSL above mean sea level

