

Fill in the form online by clicking in the appropriate field and typing.  
 Print the completed application and mail in one signed copy of the form with fees and supporting documents.  
 You will not be able to save your data entry online, so print an extra copy for yourself.

DIVISION OF MINING, LAND AND WATER  
**WATER RESOURCES SECTION**

[dnr.alaska.gov/mlw/water/](http://dnr.alaska.gov/mlw/water/)



Anchorage Office 550 West 7 <sup>th</sup> Avenue, Suite 1020 Anchorage, AK 99501-3562 (907) 269-8600 Fax: (907) 269-8904	Juneau Office PO Box 111020 Juneau, AK 99811-1020 400 Willoughby, #400 (907) 465-3400 Fax: (907) 586-2954	Fairbanks Office 3700 Airport Way Fairbanks, AK 99709 (907) 451-2705 Fax: (907) 451-2703	For ADNR Use Only Date/Time Stamp  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">1.30.2020</div>
For ADNR Use Only LAS # <div style="border: 1px solid black; padding: 2px 10px;">33149</div>	For ADNR Use Only CID # CID #	For ADNR Use Only Receipt Type      WR	

**APPLICATION FOR WATER RIGHT**

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"> <li>1. Complete one application for each water source. <b>Incomplete applications will not be accepted.</b></li> <li>2. Attach a copy of an executed deed, lease agreement, or other possessory interest document for property where water will be used (applicant must own, lease, or obtain written authorization to use water on property).</li> <li>3. Attach copy of legal access document (i.e. right-of-way, easement, permit) or application for legal access to water withdrawal point and transport route, if applicable, or copy of request or application for legal access to water withdrawal point.</li> <li>4. Attach driller's well log for drilled wells (if already drilled and available).</li> <li>5. Attach sketch, photos, plans of water system, or project description (if applicable).</li> <li>6. Attach legible map that includes Meridian, Township, Range, and Section lines such as a subdivision Plat, USGS topographical quadrangle, or borough tax map. Indicate location of water withdrawal, route of water transmission, water use area boundary, points of water use within boundary, and point of water return flow (if applicable).</li> <li>7. Attach copy of approved ADEC Water and Wastewater system certificate (if applicable).</li> <li>8. Attach copy of ADF&amp;G Fish Habitat Permit (if applicable).</li> <li>9. Attach completed and notarized Statement of Beneficial Use of Water form and associated fee if water system and water use are fully developed.</li> <li>10. <b>Submit the non-refundable fee</b> (see page 4)</li> </ol>

<b>APPLICANT INFORMATION</b>			
<b>Teck Alaska Incorporated</b>			
Organization Name (if applicable)	Agent or Consultant Name (if applicable)		
Individual Applicant Name (if applicable)	Individual Co-applicant Name (if applicable)		
<b>2525 C St., Suite 310</b>	<b>Anchorage</b>	<b>Ak</b>	<b>99517</b>
Mailing Address	City	State	Zip Code
<b>907-754-5141</b>			
Daytime Phone Number	Alternate Phone Number (optional)		
	<b>rebecca.hager@teck.com</b>		
Fax Number (if available)	E-Mail Address (optional)		

**PROPERTY DESCRIPTIONS**

**Location of Water Use**

Subdivision Name or Survey Number	Lot, Block, or Tract	Meridian	Township	Range	Section	Quarter Sections	
Red Dog Mine Tailings Back Dam Seepage (see attached)		Kateel	31N	18W	30 & 31	QQ 1/4	Q 1/4

**Location of Water Source**

Subdivision Name or Survey Number	Lot, Block, or Tract	Meridian	Township	Range	Section	Quarter Sections	
Red Dog Mine Tailings Impoundment see Attached)		Kateel	31N	18W	30 & 31	QQ 1/4	Q 1/4

**Location of Water Return Flow or Discharge (if applicable)**

Geographic Name of Water Body or Well Depth	Meridian	Township	Range	Section	Quarter Sections	
Red Dog Mine Tailings Impoundment ( See Attached)	Kateel	31N	18W	30	QQ 1/4	Q 1/4

**WATER SOURCE DESCRIPTION**

**Ground Water**

Type (e.g. drilled, dug)	Total Depth (in feet)	Static Water Level (in feet)	Date Completed	Well Yield (in gpm)

**Surface Water**

Type (e.g. stream, lake, spring)	Geographic Name (if named)
Dam Seepage and Surface flow	Red Dog Tailings Impoundment

**METHOD OF TAKING WATER (IF KNOWN)**

<b>Pump</b>	Pump Intake <u>varies</u> Inches	Hours Working <u>24</u> Hours/Day
	Pump Output <u>3,000</u> GPM	Length of Pipe _____ Feet (from pump to point of use)
<b>Gravity</b>	Pipe Diameter _____ Inches	Length of Pipe _____ Feet (take point to point of use)
	Head _____ Feet	Diversion Rate _____ <input type="checkbox"/> GPM or <input type="checkbox"/> CFS
<b>Ditch</b>	L _____ D _____ W _____ Feet	Diversion Rate _____ <input type="checkbox"/> GPM or <input type="checkbox"/> CFS
<b>Reservoir</b>	L _____ D _____ W _____ Feet	Water Storage _____ AF
<b>Dam</b>	L _____ H _____ W _____ Feet	Water Storage _____ AF

**AMOUNT OF WATER**

**Common Water Uses and Standard Amounts**

Type of Use	How Many		Standard Amounts		Total Amount Requested	Months of Use	
						Begin	End
Fully Plumbed Single-family Home (includes irrigation of 10,000 sq. ft.)	#_____Homes	X	500 GPD	=			
Partially Plumbed Single-family Home (no hot water heater)	#_____Homes	X	250 GPD	=			
Unplumbed Single-family Home (hand carry water)	#_____Homes	X	75 GPD	=			
Duplex or Triplex	#_____Bldgs.	X	1000 GPD	=			
Four-plex and Larger Housing	#_____Units	X	250 GPD	=			
Motel or Resort	#_____Rooms	X	150 GPD	=			
Work Camps	#_____People	X	50 GPD	=			
Domestic Irrigation	#_____Sq. ft.	X	250 GPD per 10,000 Sq. ft.	=			
Non-domestic Irrigation	#_____Acres	X	0.5 AFY	=			

**Other Water Uses**

Type of Use	How Many		Amount		Total Amount Requested	Months of Use	
						Begin	End
		X		=			
		X		=			
Type of Use					Total Amount Requested	Months of Use	
Seepage collection & precipitation collection (See Attached)					5,140 AFY	Jan	Dec
						Jan	Dec

Expected date for water system and water use to be fully developed **or** date when existing use started \_\_\_\_\_.  
 Note: Pursuant to AS 46.15.180(a)(1). Crimes, a person may not construct works for an appropriation, or divert, impound, withdraw, or use a significant amount of water from any source without a permit, certificate of appropriation, or authorization issued under this chapter.

11 AAC 93.040 sets out the required information on an application for a water right. AS 38.05.035(a) authorizes the director to decide what information is needed to process an application for the sale or use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(8) and confidentiality is requested, AS 43.05.230, or AS 45.48). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210. In submitting this form, the applicant agrees with the Department to use "electronic" means to conduct "transactions" (as those terms are used in the Uniform Electronic Transactions Act, AS 09.80.010 – AS 09.80.195) that relate to this form and that the Department need not retain the original paper form of this record: the department may retain this record as an electronic record and destroy the original.

**SIGNATURE**

The information presented in this application is true and correct to the best of my knowledge. I understand that per 11 AAC 93.040 and 11 AAC 93.050 additional information may be required by the department to adjudicate this application. Failure to provide requested information could result in this file being closed.

**Yesnik Leslie RDOG** Digitally signed by Yesnik Leslie RDOG  
Date: 2021.04.16 15:26:56 -08'00'

Signature

Date

**Les Yesnik**

**General Manager**

Name (please print)

Title (if applicable)

**FEE required by regulation 11 AAC 05.260.**

Make checks payable to "Alaska Department of Natural Resources":

- **\$100** for one single-family residence or duplex, or for water use associated with one single-family residence or duplex.
- **\$1,500** for up to 60 hours of staff time, for activities related to oil and gas and associated substances.
- **\$1,500** for up to 60 hours of staff time, for activities related to locatable mining.
- **\$1,500** for up to 60 hours of staff time, for hydroelectric power generation capacity greater than 100 kilowatts.
- **\$1,500** for up to 60 hours of staff time, for water removal out of a hydrologic unit under AS 46.15.035 or 46.15.037.
- **\$250** for 5,000 GPD or less for a use not listed above.
- **\$565** for greater than 5,000 GPD and no more than 30,000 GPD for a use not listed above.
- **\$690** for greater than 30,000 GPD and no more than 100,000 GPD for a use not listed above.
- **\$1,125** for greater than 100,000 GPD for a use not listed above.

**REFERENCES**

**Measurement Units**

GPD = gallons per day

CFS = cubic feet per second

GPM = gallons per minute

AF = acre-feet

AFY = acre-feet per year (325,851 gallons/year)

AFD = acre-feet per day (325,851 gallons/day)

MGD = million gallons per day

**Conversion Table**

<u>5,000GPD=</u>	<u>30,000GPD=</u>	<u>100,000GPD=</u>	<u>500,000GPD=</u>	<u>1,000,000GPD=</u>
0.01 CFS	0.05 CFS	0.2 CFS	0.8 CFS	1.5 CFS
3.47 GPM	20.83 GPM	69.4 GPM	347.2 GPM	694.4 GPM
5.60 AFY	33.60 AFY	112.0 AFY	560.1 AFY	1120.1 AFY
0.02 AFD	0.09 AFD	0.3 AFD	1.5 AFD	3.1 AFD
0.01 MGD	0.03 MGD	0.1 MGD	0.5 MGD	1.0 MGD

Red Dog Mine – Tailings Back Dam Seepage Collection System Withdrawal and Kivalina Overburden Stockpile Collection System Additional Information

**Property Descriptions**

Location of Water Use				
Meridian	Township	Range	Section	Quarter Sections
Kateel	31N	18W	30	SW
Kateel	31N	18W	31	NW & NE

Location of Water Source				
Meridian	Township	Range	Section	Quarter Sections
Kateel	31N	18W	30	SW
Kateel	31N	18W	31	NW & NE

Location of Water Return Flow or Discharge				
Meridian	Township	Range	Section	Quarter Sections
Kateel	31N	18W	30	SW

**Water Source Description**

Back Dam Seepage Collection System

The seepage collection system planned for the Red Dog Tailings Back Dam (NID# AK00303) is a series of wells along the downstream face of the dam. The engineered fill placed in the downstream face of the cement core of the dam will provide a preferential flow path for the seepage water to the collection wells. The wells will collect water seeping through the concrete center core of the dam. The collection system will also collect precipitation falling on the portion of the Kivalina Overburden Stockpile that flows toward the South Fork Red Dog Creek Drainage basin. All water collected by the system is pumped into the tailings impoundment.

The seepage collection system will be expanded from the single collection sump to the full design of the seepage collection system during the construction of next two stages of the tailings dam. Construction is scheduled for completion with the dam in 2027.

The system will be capable of withdrawing 3,000 gpm year-round.

Kivalina Overburden Stockpile Collection System

The Kivalina Overburden Collection system intercepts precipitation falling on Bons drainage side of the stockpile and pumps the intercepted water to the tailings impoundment. The system collects precipitation from approximately 90 acres. This system collects both the surface precipitation flow and groundwater flow from the permafrost active zone. The run off from this area is considered mine drainage and is required to be collected and treated by APDES Permit No: AK0038652.

**Water Usage**

The water is used for metal mining and treatment for discharge to Red Dog Creek. Water collected is pumped back into the tailings impoundment for storage prior to treatment and discharge to Middle Fork Red Dog Creek.

**Total Water Requested**

Teck is requesting a total annual water use volume of 4,840 AFY for seepage collection, which is 100 percent of the drainage flow volume of the Kivalina Overburden Stockpile. The system collects an area of approximately 90 acres. Based on an annual precipitation of 40 inches a volume of 300 AFY, the total water use requested is 5,140 AFY.

# Red Dog Mine Tailings Back Dam Seepage and Kivalina Overburden Collection System

## Location Map

