

Board of Minerals and Environment

523 East Capitol Avenue
Pierre, South Dakota 57501-3182
(605)773-3151

Live audio of the meeting is available at <http://www.sd.net>

AGENDA

Board of Minerals and Environment Telephone Conference Call Meeting

**DANR Large Conference Room
523 East Capitol Avenue
Pierre, South Dakota**

May 16, 2024

10:00 a.m. Central Time

Call to order and roll call

Approval of minutes from March 21, 2024, meeting

Appoint hearing chair and set the hearing date in the matter of the permit application of the city of Madison to operate and construct a restricted use solid waste site

Mining Issues Consent Calendar – Tom Cline

Acceptance of financial assurance increase for Wharf Resources (USA), Inc., Large Scale Mine Permits 356, 434, 435, 464, 476, and 490 – Eric Holm

Discount rate update of post closure financial assurance for Wharf Resources (USA), Inc., Large Scale Mine Permits 356, 434, 435, 464, 476, and 490 – Eric Holm

Release of reclamation liability for B4Time, EXNI-408 – Eric Holm

Oral Mining Reports

Homestake Mining Company – Mark Tieszen

Richmond Hill Mine – Mark Tieszen

Wharf Resources (USA), Inc. – Matt Zietlow

DTRC, LLC – Timm Comer

Update on Brohm EPA Superfund Site – Roberta Hudson

(Continued)

Annual update of Preliminary List of Special, Exceptional, Critical, or Unique Lands – Eric Holm

Public comment period in accordance with SDCL 1-25-1

Next meeting – July 18, 2024

Adjourn

The board packet is available on the South Dakota Boards and Commissions Portal at <https://boardsandcommissions.sd.gov/Meetings.aspx?BoardID=67>

Interested parties may participate via telephone or in the DANR Large Conference Room, 523 East Capitol Avenue, Pierre, SD. To participate via telephone please contact DANR at (605) 773-3886 or via email at brenda.binegar@state.sd.us no later than 4:00 p.m. Central Time on Wednesday, May 15, 2024.

Notice is given to individuals with disabilities that the meeting is being held in a physically accessible location. Individuals requiring assistive technology or other services in order to participate in the meeting or materials in an alternate format should contact Brian Walsh, Nondiscrimination Coordinator, by calling (605) 773-5559 or by email at Brian.Walsh@state.sd.us as soon as possible but no later than two business days prior to the meeting in order to ensure accommodations are available.

The audio recording for this meeting is available on the South Dakota Boards and Commissions Portal at <http://boardsandcommissions.sd.gov/Meetings.aspx?BoardID=67>

Minutes of the
Board of Minerals and Environment
Telephone Conference Call Meeting
523 East Capitol Avenue
Pierre, South Dakota

March 21, 2024
10:00 a.m. Central Time

CALL TO ORDER: The meeting was called to order by Chairman Rex Hagg. The roll was called, and a quorum was present.

The meeting was streaming live on SD.net, a service of South Dakota Public Broadcasting.

BOARD MEMBERS PRESENT: Rex Hagg, Glenn Blumhardt, Bob Ewing, Gregg Greenfield, Gary Haag, Doyle Karpen, Bob Morris, and Laurie Schultz.

BOARD MEMBERS ABSENT: Jessica Peterson.

OTHERS PRESENT: Mike Lees, Roberta Hudson, Eric Holm, Gage Koistinen, and Tom Cline, DANR Minerals, Mining, and Superfund Program; Patrick Malone, Jerry Aberle, Tim Comer, and Dwight Gubbrud, DTRC, LLC; Mark Tieszen and Jeff Burich, Homestake Mining Company; Michael Goodroad, Spearfish Canyon Homeowners Association; and Liliias Jarding.

APPROVAL OF MINUTES FROM JANUARY 18, 2024, MEETING: Motion by Ewing, seconded by Blumhardt, to approve the minutes from the January 18, 2024, Board of Minerals and Environment meeting. A roll call vote was taken, and the motion carried unanimously.

MINING ISSUES CONSENT CALENDAR: Prior to the meeting the board received a copy of the consent calendar, which is a table listing the department recommendations for release of liability and surety, transfer of liability and release of surety, transfers of liability, and release of liability. (See attachment)

Tom Cline with the Minerals, Mining, and Superfund Program was available for questions from the board. There were no questions.

Motion by Karpen, seconded by Ewing, to accept the department recommendations for release of liability and surety, transfers of liability, and release of liability. A roll call vote was taken, and the motion carried unanimously.

TRANSFER OF MINE PERMIT 416 FROM VMC, LLC TO DTRC, LLC: Eric Holm reported that DTRC, LLC requested transfer of Large Scale Mine Permit 416 from VMC, LLC. The general location of the permitted operation is approximately five miles west of Lead, SD near

Spearfish Canyon. Under SDCL 45-6B-47, any mine permit can be transferred from one operator to another with the successor operator assuming all reclamation liability.

The complete transfer application form was submitted February 5, 2024. The \$100 transfer fee was submitted on January 23, 2024. The \$23,100 replacement surety was submitted January 31, 2024. The application was declared complete on February 5, 2024.

The DANR recommendation for approval of the transfer permit was prepared on February 19, 2024. The recommendation was published in the Black Hills Pioneer on March 7 and 14, 2024, and the Affidavit of Publication was received March 20, 2024. The DANR recommendation was also posted to the DANR public notice web page.

No comments and no petitions to intervene were received.

Under SDCL 45-6B-47, the board cannot deny a mine permit transfer unless the operation is not or cannot be brought into compliance with all applicable federal, state, or local laws or if the successor operator is in violation of state mining laws or mine permit conditions for any mining operation in the state. The current mine permit and DTRC, LLC are both in compliance with all federal, state, and local laws and regulations. DTRC, LLC also submitted a Certification of Applicant form and disclosed no violations.

The department recommended approval of the transfer of Large Scale Mine Permit 416 and liability from VMC, LLC to DTRC, LLC, release of Irrevocable Letter of Credit No. 248, First Interstate Bank, Spearfish, SD in the amount of \$23,100; and acceptance of CD 6601011949, First Interstate Bank, Lead, SD, in the amount of \$23,100.

Motion by Karpen, seconded by Schultz, to transfer Large Scale Mine Permit 416 and liability from VMC, LLC to DTRC, LLC, release Irrevocable Letter of Credit No. 248, First Interstate Bank, Spearfish, SD in the amount of \$23,100; and accept CD 6601011949, First Interstate Bank, Lead, SD, in the amount of \$23,100. A roll call vote was taken, and the motion carried unanimously.

ANNUAL UPDATE ON POSTCLOSURE FINANCIAL ASSURANCE FOR HOMESTAKE MINING COMPANY, PERMITS 332 AND 456: Mr. Holm reported that in the May 18, 2006, Board Order regarding the postclosure financial assurance for Mine Permits 332 and 456, it states the financial assurance shall be automatically extended for periods of one year. At the time of each annual extension, the face value of the financial assurance shall be adjusted to the bonding schedule set by the board in 2006 and updated in 2012, 2018, and 2023 during the five-year financial assurance reviews.

For 2024, the face value of the surety bond that serves as the postclosure financial assurance is required to be \$82,004,927. This is an increase from the \$80,201,732 which was submitted last year.

For the increase, Homestake submitted a rider to Surety Bond No. 8233-63-10, Federal Insurance Company, which increases the amount to the new face value. Federal Insurance is licensed in

South Dakota and is on the US Department of Treasury list of approved surety companies. Ratings for the company from AM Best, Standard and Poor's, Moody's, and Fitch's are superior, very strong, high quality, and very high credit, respectively. Outlooks are stable except for a positive outlook from Moody's.

The department recommended the board accept the rider to Surety Bond No. 8233-63-10, Federal Insurance Company, increasing the postclosure financial assurance amount to \$82,004,927.

In response to a question from Chairman Hagg, Mr. Holm stated that in 2023 the discount rate was lowered to 4.2 percent.

Motion by Ewing, seconded by Morris, to accept the rider to Surety Bond No. 8233-63-10, Federal Insurance Company, increasing the postclosure financial assurance amount to \$82,004,927 for Homestake Mining Company Mine Permits 332 and 456. A roll call vote was taken, and the motion carried unanimously.

DISCOUNT RATE AND ANNUAL UPDATE OF POSTCLOSURE FINANCIAL ASSURANCE FOR HOMESTAKE MINING COMPANY, PERMIT 445: Mr. Holm reported that in the postclosure conditions for Mine Permit 445, which were approved by the board on January 21, 2016, it states the financial assurance shall be automatically extended for periods of one year. At the time of each annual extension the face value of the financial assurance shall be adjusted to the bonding schedule set by the board in 2016 and updated in April 2022 as part of the five-year financial assurance review.

For 2024, the face value of the surety bond that serves as the postclosure financial assurance is required to be \$40,634,534. This is an increase from the \$31,596,628 amount, which was submitted in 2023. Besides the annual update, the increase covers lowering the discount rate from 5 percent to 4.2 percent.

In October 2023, the board approved lowering the discount rate from 5 percent to 4.2 percent for the postclosure bond for Homestake's Mine Permits 332 and 456. This new discount rate is being applied to all postclosure bonds.

For the increase, Homestake Mining submitted a rider to Surety Bond No. 09177703, Fidelity & Deposit Company of Maryland and Zurich American Insurance Company, which increases the amount to the new face value. Both surety companies are licensed in South Dakota and are on the US Department of Treasury's list of approved surety companies. Ratings for both companies from AM Best, Standard and Poor's, Moody's, and Fitch's are superior, very strong, high quality, and very high credit, respectively. Outlooks are stable to positive.

The department recommended that the board accept the rider to Surety Bond No. 09177703, Fidelity & Deposit Company of Maryland and Zurich American Insurance Company, increasing the postclosure financial assurance amount to \$40,634,534.

Motion by Morris, seconded by Haag, to accept the rider to Surety Bond No. 09177703, Fidelity & Deposit Company of Maryland and Zurich American Insurance Company, increasing the postclosure financial assurance amount to \$40,634,534 for Homestake Mining Company Mine Permit 445. A roll call vote was taken, and the motion carried unanimously.

LEGISLATIVE UPDATE – MINING AND MINERAL EXPLORATION: Mike Lees, administrator of the Minerals, Mining and Superfund Program, provided an update on Senate Bill 111, an act to revise requirements of mining and mineral exploration. The bill was approved by the legislature with some amendments.

The first three sections of the bill are amendments to 45-6, construction aggregate.

Section 1 of the bill essentially allows mining of limestone for both agricultural and construction purposes under a mine license.

Section 2 of the bill provides that an operator shall submit a surety to the department, to be held under the authority of the board. The language was added with the intent that the chairman of the board will no longer have to serve as the signatory on the construction aggregate CDs and surety bonds. These will still be brought before the board for approval of surety releases, but the department will now serve as the signatory.

Also in Section 2, an increase to the construction aggregate surety was approved. When the bill was originally discussed with the board, the maximum cap for a statewide blanket surety was \$500,000. The legislature decreased amount to \$300,000.

The other change that was made was the implementation of increases is staggered for both the per-acre cost and the statewide blanket, so over a five-year period operators will have a chance to reclaim unneeded acres, so they can minimize the number of acres for which they need to post the increased amount.

Ultimately, at the end of the five-year period, the surety requirement for construction aggregate, sand and gravel mines will be \$3,850 per acre or a \$300,000 statewide blanket surety. The current statewide surety requirement is \$20,000.

Section 2 also allows an irrevocable letter of credit as a form of financial assurance that operators can use.

Section 3 of the bill provides for a joint powers agreement to avoid the imposition of duplicate surety requirements on sites.

Sections 4 and 5 amended 45-6B, mined land reclamation, and Sections 6 and 7 amended 45-6C, mineral exploration, to update the surety requirements.

Previously, the maximum surety amount for a small-scale mining permit was \$2,500. Section 4 of the bill provides for a surety amount determined sufficient by the board to cover the cost of reclamation, but not exceeding \$38,500.

Section 5 of the bill gives the board explicit authority to establish procedures for posting and monitoring financial assurance by adding (11) to 45-6B-81. Mr. Lees noted that the department intends to present proposed financial assurance rules for mine permit activities to the board for approval at a later date.

Section 6 of the bill was amended to provide that exploration operators are required to post the surety before the department issues written restrictions, which will ensure operators post surety before they commence operations.

In Section 7 of the bill, the maximum surety for mineral exploration was amended from \$20,000 statewide to \$100,000 statewide.

Mr. Lees stated that the surety requirements were established in the early 1980s, so the updated surety amounts approved by the legislature were needed.

PUBLIC COMMENT PERIOD IN ACCORDANCE WITH SDCL 1-25-1: There were no public comments.

NEXT MEETING: The next meeting is scheduled for May 16, 2024.

ADJOURN: Motion by Morris, seconded by Karpen, to adjourn the meeting. A roll call vote was taken, and the motion carried unanimously.

Secretary, Board of Minerals
and Environment

Date

Witness

Date

Consent Calendar
South Dakota Board of Minerals & Environment

March 21, 2024

<u>License Holder</u>	<u>License No.</u>	<u>Site No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
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Release of Liability & Surety:

C & C Hauling & Construction Inc. Yankton, SD	13-948		\$1,000	First Dakota National Bank Yankton, SD	Release liability and \$1,000.
		948001	Accretion Lot C, Section 16; T93N-R55W Yankton County		

Transfer of Liability & Release of Surety:

Swenson Partnership Wessington Springs, SD	16-1013		\$20,000	Platte River Insurance Company Madison, WI	Transfer liability and release \$20,000.
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		1013001	SW1/4 Section 16; T108N-R64W Jerauld County		
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Transfer to: Feistner Gravel & Excavation Woonsocket, SD	03-759		\$20,000	Central Bank Brookings, SD	
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Consent Calendar
South Dakota Board of Minerals & Environment

March 21, 2024

<u>License Holder</u>	<u>License No.</u>	<u>Site No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
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Transfer of Liability:

Aggregate Construction, Inc. Minot, ND	89-382		\$20,000	Ohio Farmers Insurance Company Westfield Center, OH	Transfer liability.
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382041	W1/2 SW1/4 and SW1/4 NW1/4 Section 8; T5N- R5E Meade County
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Transfer to:

GCC Dacotah, Inc. Rapid City, SD	01-721	\$20,000	Wells Fargo Bank Belle Fourche, SD
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Atteberry Construction, Inc. Colome, SD	97-617	\$20,000	First Fidelity Bank Colome, SD	Transfer liability.
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617010	N1/2 SE1/4 Section 20; 43N-R25W Mellette County
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Transfer to:

Hickey Land, LLC Chamberlain, SD	24-1133	\$3,000	First Dakota National Bank Chamberlain, SD
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Consent Calendar
South Dakota Board of Minerals & Environment

March 21, 2024

<u>License Holder</u>	<u>License No.</u>	<u>Site No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
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Release of Liability:

Western Construction Inc. Rapid City, SD	09-880	880023	\$20,000	Western Surety Company Chicago, IL	Release liability.
		NW1/4 Section 24; T41N-R40W Jackson County			

South Dakota Board of Minerals & Environment

March 21, 2024

<u>Permit Holder</u>	<u>Permit No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
<u>Transfer of Large Scale Mine Permit 416:</u>				
VMC, LLC Steamboat Springs, CO	416	\$23,100	First Interstate Bank, Spearfish, SD	Transfer Permit 416 and liability from VMC, LLC to DTRC, LLC. Release ILOC No. 248, First Interstate Bank, Spearfish, SD, in the amount of \$23,100. Accept CD 6601011949, First Interstate Bank, Lead, SD, in the amount of \$23,100.
Sections 29, 30, 31, & 32; T5N-R2E, Lawrence County				
Transfer to:				
DTRC, LLC Lead, SD				
<u>Annual Update of Post Closure Financial Assurance:</u>				
Homestake Mining Company Central City, SD	332 & 456	\$80,201,732	Federal Insurance Company	Accept rider to Bond No. 8233-63-10, Federal Insurance Company, increasing the Post Closure Financial Assurance amount to \$82,004,927.

South Dakota Board of Minerals & Environment

March 21, 2024

<u>Permit Holder</u>	<u>Permit No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
<u>Discount Rate & Annual Update of Post Closure Financial Assurance:</u>				
Homestake Mining Company Central City, SD	445	\$31,596,628	Fidelity & Deposit Company of Maryland Zurich American Insurance Company	Accept rider to Bond No. 09177703, Fidelity & Deposit Company of Maryland and Zurich American Insurance Company, increasing the Post Closure Financial Assurance amount to \$40,634,534.

Consent Calendar

South Dakota Board of Minerals & Environment

May 16, 2024

<u>License Holder</u>	<u>License No.</u>	<u>Site No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
<u>Release of Liability & Surety:</u>					
Wipf Excavating, LLC	23-1120		\$2,500	American Bank & Trust Huron, SD	Release liability and \$2,500.
		1120001	SW1/4 Section 28; T111N-R65W Beadle County		
 <u>Transfer of Liability:</u>					
Aggregate Construction, Inc. Minot, ND	89-382		\$20,000	Ohio Farmers Insurance Company Westfield Center, OH	Transfer liability.
		382044	Section 27 and SE1/4 Section 21; T6N-R16E Meade County		
Transfer to:					
James L. Feist	24-1135		\$1,000	Bankwest Pierre, SD	

South Dakota Board of Minerals & Environment

May 16, 2024

<u>Permit Holder</u>	<u>Permit No.</u>	<u>Surety Amount</u>	<u>Surety Company or Bank</u>	<u>DANR Recommendation</u>
<u>Acceptance of Financial Assurance for Wharf Resources (USA), Inc.:</u>				
Wharf Resources (USA), Inc. Lead, SD	356, 434, 435, 464, 476, & 490	\$807,300	Siriuspoint America Insurance Company	Accept rider to Bond No. SPA153047_002, Siriuspoint America Insurance Company, increasing the Financial Assurance amount to \$825,700.
<u>Discount Rate Update of Post Closure Financial Assurance:</u>				
Wharf Resources (USA), Inc. Lead, SD	356, 434, 435, 464, 476, & 490	\$10,003,400	Everest Reinsurance Company	Accept Bond No. ES00017792, Everest Reinsurance Company, in the amount of \$10,003,400 increasing the post closure bond amount to \$52,689,000.
<u>Release of Reclamation Liability:</u>				
B4Time, LLC Bemidji, MN	EXNI-408	\$0	\$1,000 surety forfeited and sent to US Forest Service April 16, 2020, to complete reclamation	Release B4Time's reclamation liability and close file.



0 50 100
Feet
Prepared by: Gary Haag (04/08/2020)



B4 Time Mine
T1N, R4E, SW1/4, Section 7
Pennington County, South Dakota
USGS Rochford 7.5 Minute Quad



Photo 1. Exploration trench prior to reclamation,



Photo 2. Exploration trench after recontouring on 09/14/2020.

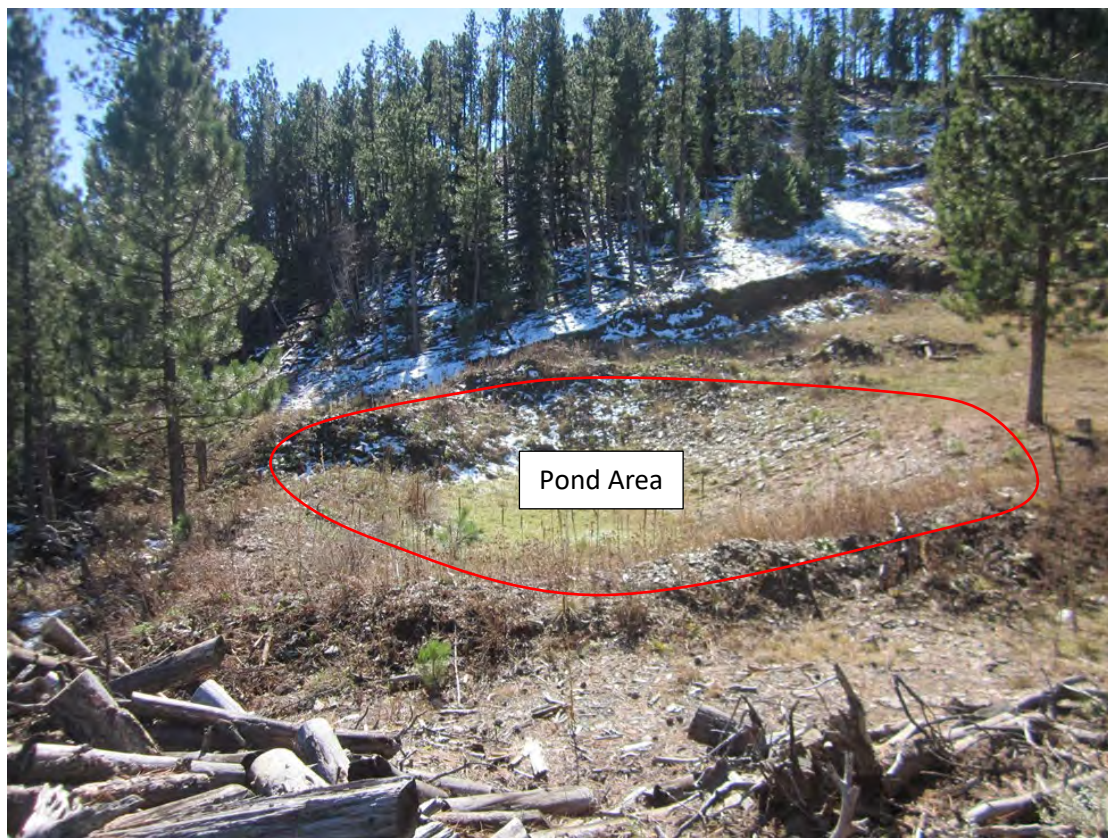


Photo 3. Holding pond prior to reclamation.



Photo 4. Holding pond area after 09/14/2020 reclamation.



Photo 5. Reclaimed exploration area looking down from access road.



Photo 1. Reclaimed exploration area looking down from access road.



Photo 2. Reclaimed exploration trench looking toward access road.



Photo 3. Closer look at the backfilled exploration trench.



Photo 4. Reclaimed pond.

BARRICK

Homestake Mining Company

NYSE : GOLD
TSX : ABX

World class mines.
World class people.

Annual Report to the South Dakota Board of Minerals and Environment
May 16, 2024



Homestake/Richmond Hill 2023 Employment and Contributions

Yearend employment: 8 FTE's + 4 FT contract employees and 1 part-time employee

2023 Contributions: Approx. \$42,000

Homestake Mine Open Cut Review



Reclamation has been completed at the waste rock facilities.

As of the end of 2023:

- 555 acres released
- 87 remaining affected acres
- Reclamation is complete on all remaining affected acres

2023 Activities

Option Agreement with Dakota Gold



- Barrick entered into an Option Agreement with Dakota Gold Corp. in 2021 to acquire the Homestake and Richmond Hill Properties
- The Homestake and Richmond Hill Options have been extended for an additional 18 months
- Dakota Gold may exercise the Homestake and/or Richmond Hill Option(s) on or before March 7, 2026

2023 Monitoring

Water Quality Monitoring

- Monitoring in 2023 continues to show that Surface Water around the Homestake Mine site remains Excellent and meets all Water Quality Standards

Deadwood Creek Monitoring



Blacktail Water Treatment Plant – Water Quality

- Blacktail WTP treats water emanating from the toes of Sawpit and East Waste Rock Facilities
- WTP system removes selenium and Total Dissolved Solids (TDS) from water prior to discharging to Deadwood Creek
- Blacktail Water Treatment Plant discharge consistently meets permitted effluent limits and surface water quality standards
- Instream selenium and TDS levels are well below surface water quality standards and have been since the Water Treatment Plant began operation in 2006

Geotechnical Monitoring



- Homestake employs multiple displacement monitoring techniques
 - Survey Monuments and Prisms
 - Robotic Total Station and GPS Methods
 - Piezometers
 - Inclinometers
 - Visual Inspections
 - InSAR Monitoring

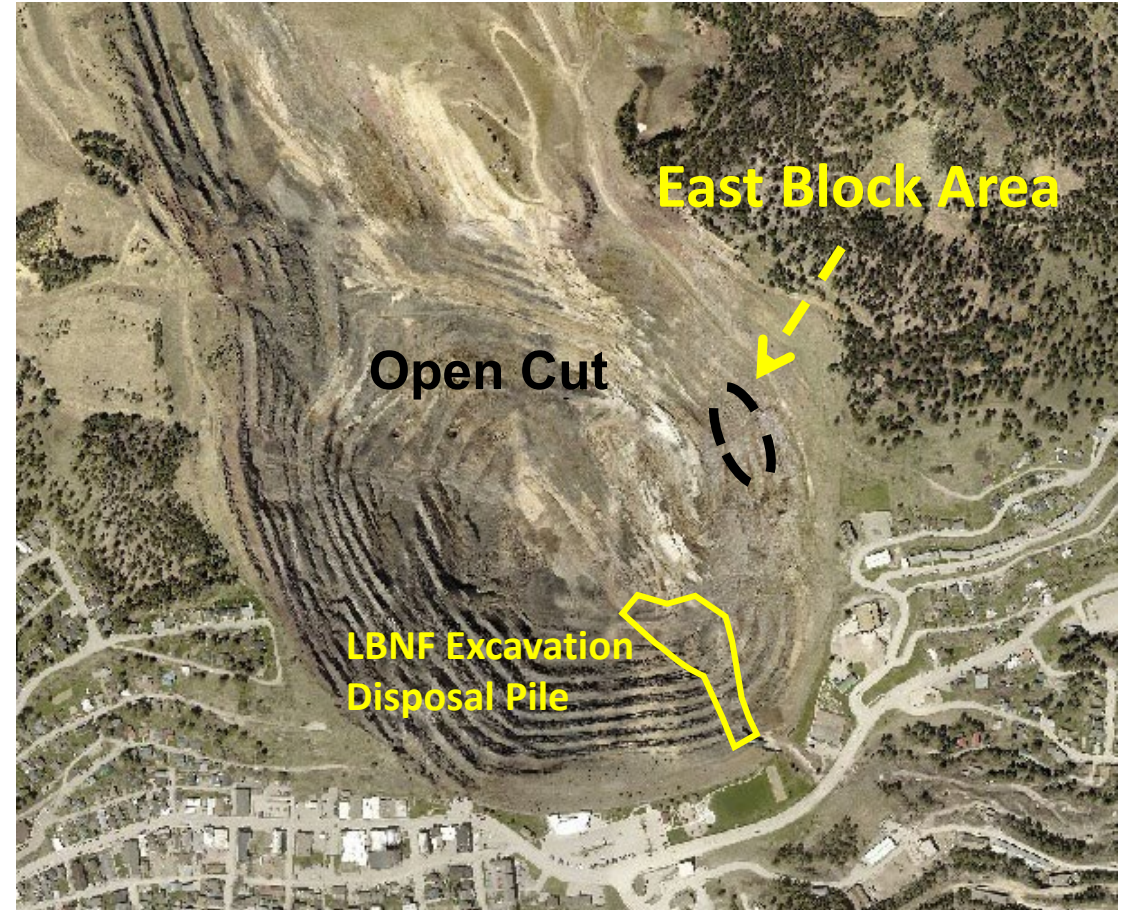
Geotechnical Monitoring



- Open Cut Prisms and Survey Monuments
 - Baseline and current survey performed in SD State Plane Coordinates utilizing robotic total station instruments
 - New trendline movement rates developed for survey monuments and prisms during the October 2023 Review indicate no significant movement from prior monitoring

Geotechnical Monitoring

- Open Cut - East Block
 - Area contained within pit boundary on Homestake-controlled property
 - Measurements do not indicate any new area of instability or significant upslope enlargement of existing instability
- Open Cut – Remaining Crest
 - No indications of other recent movements that could represent potential for substantial slope failures



Geotechnical Monitoring

- Open Cut – LBNF Excavation
 - Disposal of rock started May 2021
 - Disposal of rock substantially completed in February 2024
 - Permitted: 875K tons
 - Rock conveyed: Approx. 820K tons
 - Pile approximately 560+ feet vertical
 - Prisms on either side of pile are stable



Geotechnical Monitoring

- East Waste Rock Facility
 - Survey Monuments
 - New trendline movement rates for survey monuments developed during the October 2023 review indicate no significant movement from prior monitoring.
 - Piezometers
 - No significant buildup of water levels in waste rock facility



Geotechnical Monitoring



- East Waste Rock Facility
 - Inclinometers have indicated no significant changes since previous monitoring
 - Visual Inspections show no significant areas of instability
 - InSAR Monitoring (Interferometric Synthetic Aperture Radar)
 - TerraSAR-X high resolution satellite radar imagery indicates that the dump is behaving as expected with no significant issues

2024 Homestake Projects



- Continue Water Treatment Agreement with SDSTA
- Continue Water Treatment

Thank you

BARRICK

Richmond Hill Mine

NYSE : GOLD
TSX : ABX

World class mines.
World class people.

Annual Report to the South Dakota Board of Minerals and Environment
May 16, 2024



Reclamation Acreage Overview



▪ Total Released Acres	262.28
▪ Total Remaining Affected Acres	75.13
▪ Un-reclaimed Acres (for water treatment)	71.37
▪ Reclaimed Affected Acres	3.76

2023 Activities

Option Agreement with Dakota Gold



- Barrick entered into an Option Agreement with Dakota Gold Corp. (previously Dakota Territory Resource Corp.) in 2021 to acquire the Homestake and Richmond Hill Properties
- Dakota Gold may exercise the Option on or before March 7, 2026

Sludge Removal from Storage Pond (2021 – 2022)

- Sludge was removed from the storage pond in preparation for repairs and installation of new primary liner
- Sludge was deposited in the onsite sludge pond
- Approximately 8,000 yd³ were removed in 2021 and 2022



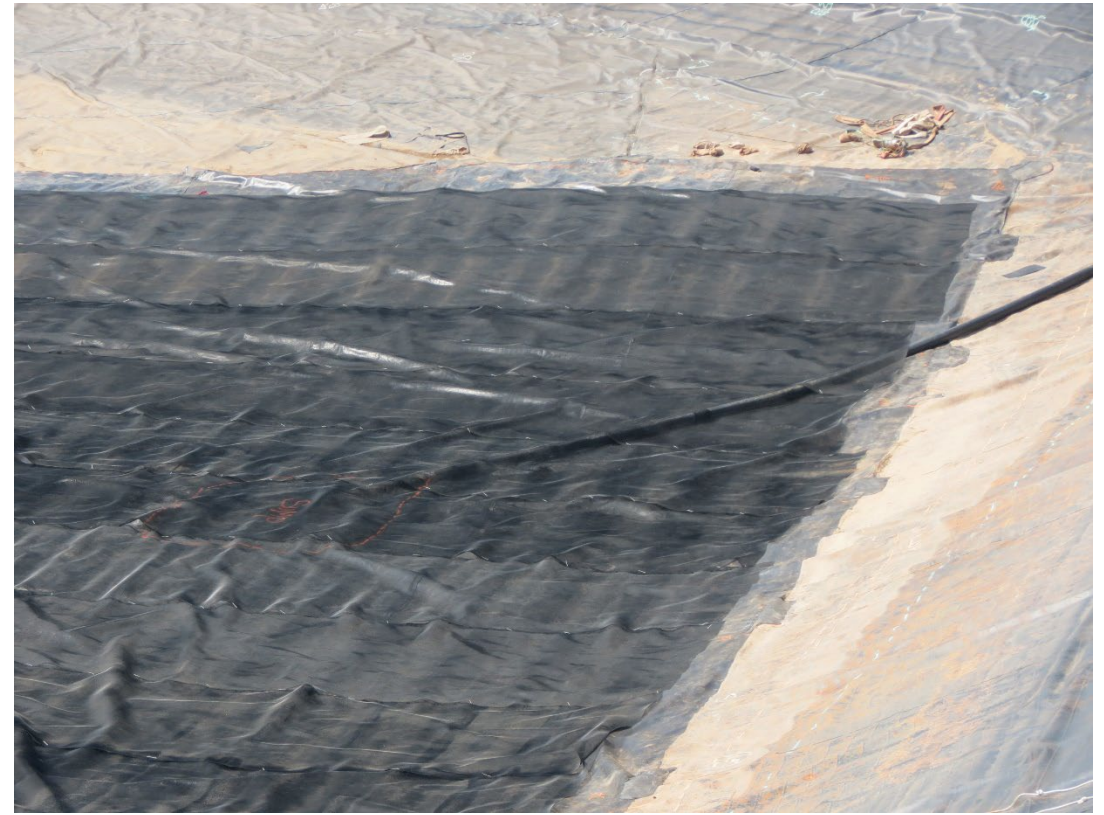
Storage Pond Liner Repairs (2021 – 2022)

- Damaged liner from 2021 - 2022 winter and liner damaged during sludge removal was repaired or replaced
- Repairs were required for sloped areas on east and west sides and damaged flatter areas in bottom of pond. 199,160 SF of liner replaced



Primary Storage Pond Liner Installation

- Access was improved around pond
- New anchor trench was dug
- Geonet, sump and pipe installed between existing and new liners to remove any trapped water



Primary Storage Pond Liner Installation

- Geonet installed in bottom and in stripe pattern on slopes to facilitate drainage to the sump
- Final anchor trench work
- Textured liner for employee safety and improved wildlife egress



Primary Storage Pond Liner Installation

- Completed Pond Liner System – SW view



- Completed Pond Liner System – NW view



Primary Storage Pond Liner Installation

Hydroseeding/Hydromulching



Reclamation of Discharge Ponds

- Pond No. 1



- Pond No. 2



Reclamation of Discharge Ponds

- Removal of pond embankments (consisting of topsoil)



Reclamation of Discharge Ponds

- Grading to allow proper drainage from area
- Hydroseeded with approved seed mix and hydromulched



Reclamation of Sludge Basin



Reclamation of Sludge Basin

- Material from discharge pond reclamation project was hauled to the sludge basin for cover material
- Soil was pushed across sludge basin and graded at a minimum 1.5% slope for proper drainage



Reclamation of Sludge Basin

- The sludge basin was covered with a minimum of three feet of fill (topsoil).



Reclamation of Sludge Basin

- The cover ties into the existing embankment on the north and west sides and sloped to promote drainage.
- The reclaimed sludge basin was seeded with the approved reclamation seed mix and hydromulched.



RO and Multimedia Filter Installation



Water Management and Treatment

Water Management and Treatment



Leach Pads and Ponds

- Biological Water Treatment Plant Operations – Se Treatment
- Operated Biological WTP with RO discharging 17.71 million gallons
- Operated Biological WTP independently over winter months during 2023 discharging 1.82 million gallons

Leach Pads and Ponds

- Approximately 10.9 million gallons of water are currently stored in treatment ponds (*survey date: 04/05/24*)
- Leach pad effluent flows averaged approximately 26.5 gpm in 2023

Leach pad effluent flows in 2023 were modestly higher than 2022 average flows of 24.9 gpm. Precipitation was above average in 2023, resulting in slightly higher infiltration rates; (precipitation was 23.51 inches in 2022 and 33.95 inches in 2023)

Spruce Gulch - Reclaimed Site of Waste Rock Disposal Facility

- Water treatment - pH adjustment with sodium hydroxide as needed
- Nearby South Gulch water is pumped to Spruce Gulch Treatment Pond for treatment

Monitoring Activities

Pit Impoundment and Leach Pad Monitoring



- The 2023 Pit Backfill Monitoring/Capping System Monitoring continues to indicate that the cap is functioning to and better than design expectations
- The leach pad capping system continues to perform well limiting infiltration

Sitewide Water Quality Monitoring



- Water Quality at the site is generally stable or improving
- Cleopatra Creek water quality monitoring confirms there are no impacts from the Richmond Hill Mine
- Monitoring is continuing and site-specific performance criteria were developed in consultation with DANR and approved by the Board to ensure continued protection of the environment in postclosure

2024 Richmond Hill Mine Plans



- Continue Water Treatment
- Continue Monitoring Activities

Thank you



Annual Update

Wharf Resources

Matt Zietlow, Environmental Manager
May 2024

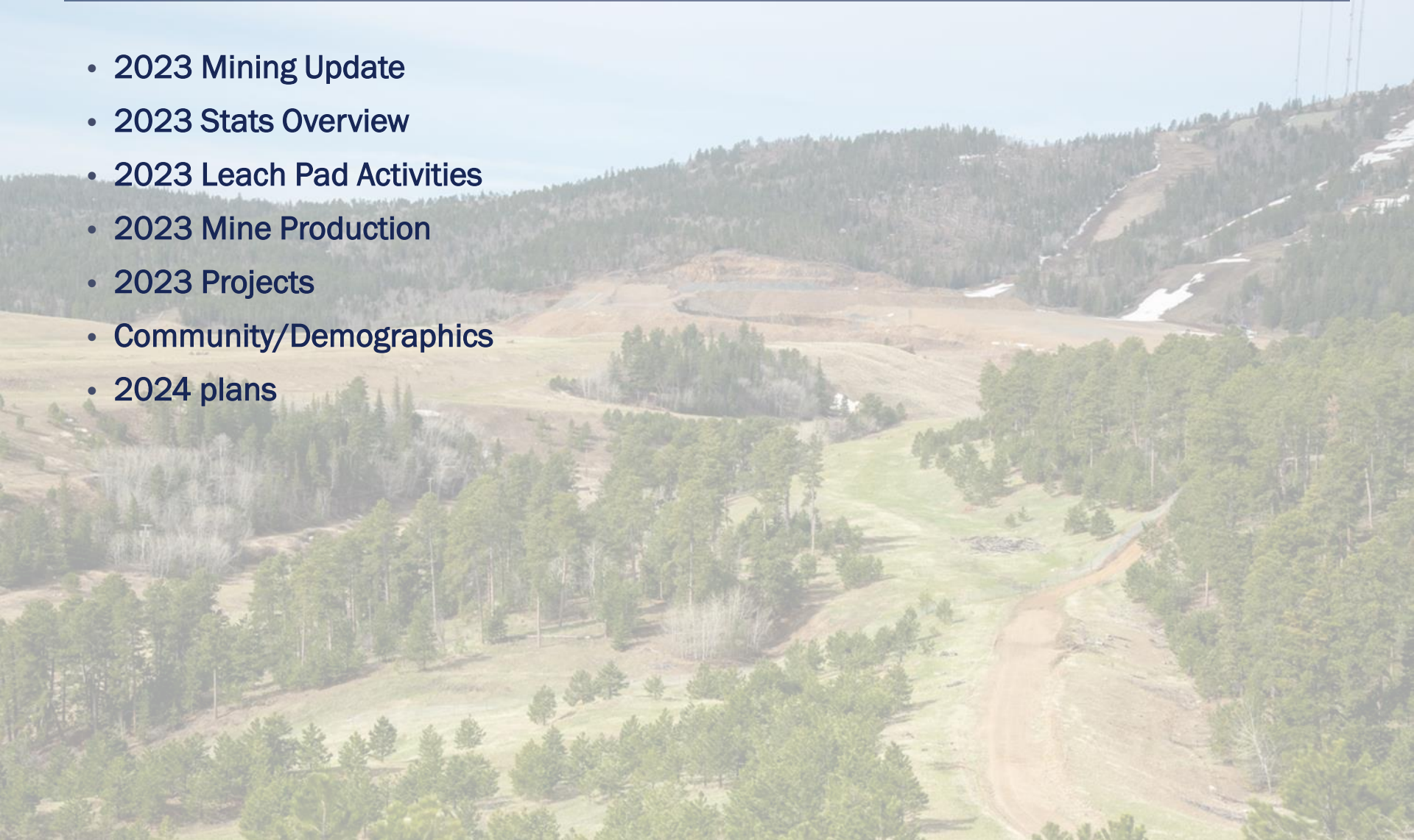


NYSE: CDE

> Wharf Resources, Annual Report



- 2023 Mining Update
- 2023 Stats Overview
- 2023 Leach Pad Activities
- 2023 Mine Production
- 2023 Projects
- Community/Demographics
- 2024 plans



Site Overview – 2023 aerial



Wharf Mine

Portland Ridge

Boston Expansion Area

Terry Peak ski area

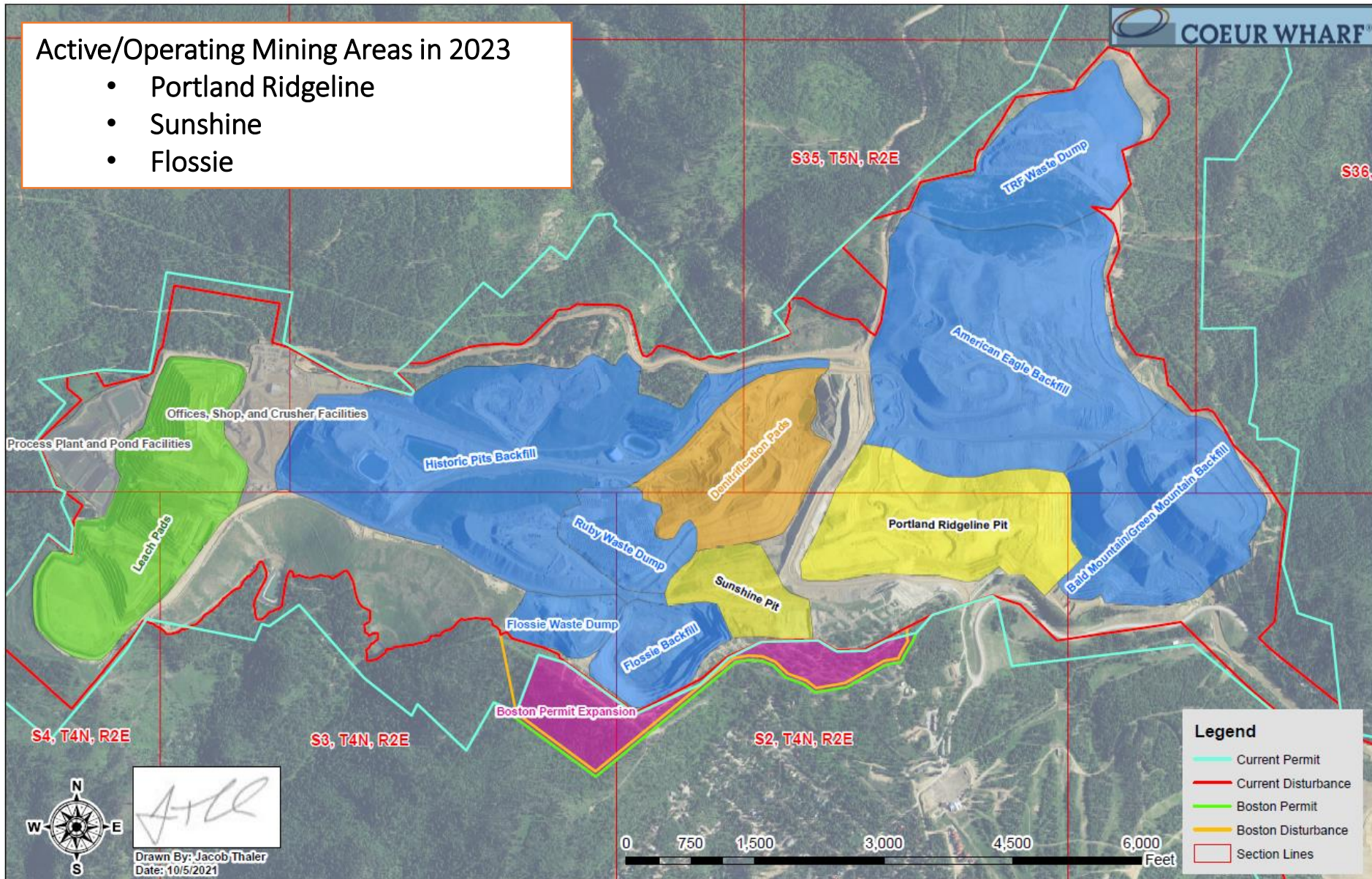
Golden Reward



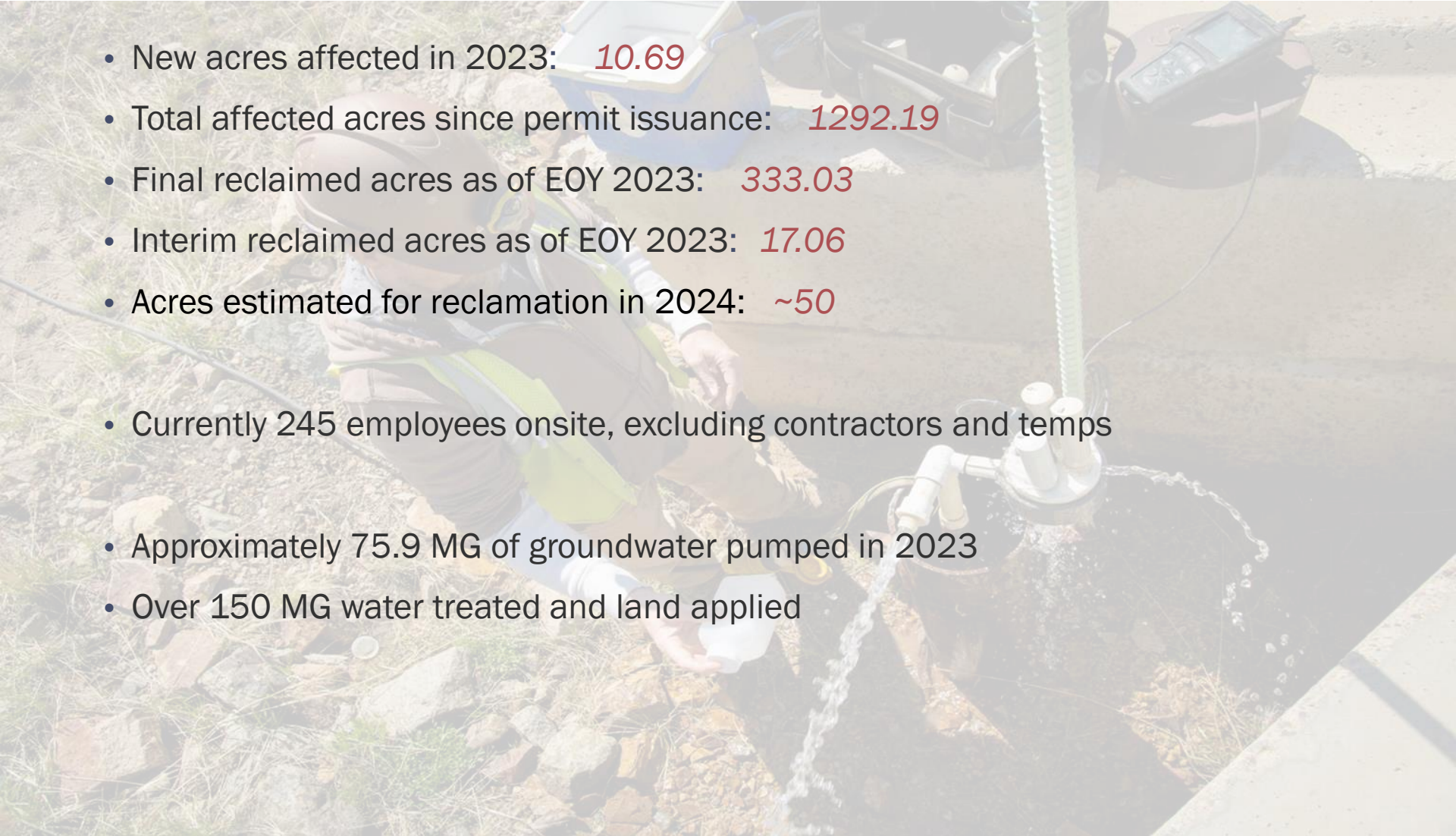
Wharf 2023 Mining Update

Active/Operating Mining Areas in 2023

- Portland Ridgeline
- Sunshine
- Flossie



> General Mine stats update

- 
- New acres affected in 2023: **10.69**
 - Total affected acres since permit issuance: **1292.19**
 - Final reclaimed acres as of EOY 2023: **333.03**
 - Interim reclaimed acres as of EOY 2023: **17.06**
 - Acres estimated for reclamation in 2024: **~50**
 - Currently 245 employees onsite, excluding contractors and temps
 - Approximately 75.9 MG of groundwater pumped in 2023
 - Over 150 MG water treated and land applied

> Leach Pads Update

- Pads 4 & 5 completed denitrification and were approved for offload during cy 2023
- Pad 3 denitrification initiated late 2023
- Pads 1 & 2 continued normal leach operations during 2023



> 2023 Mine Production



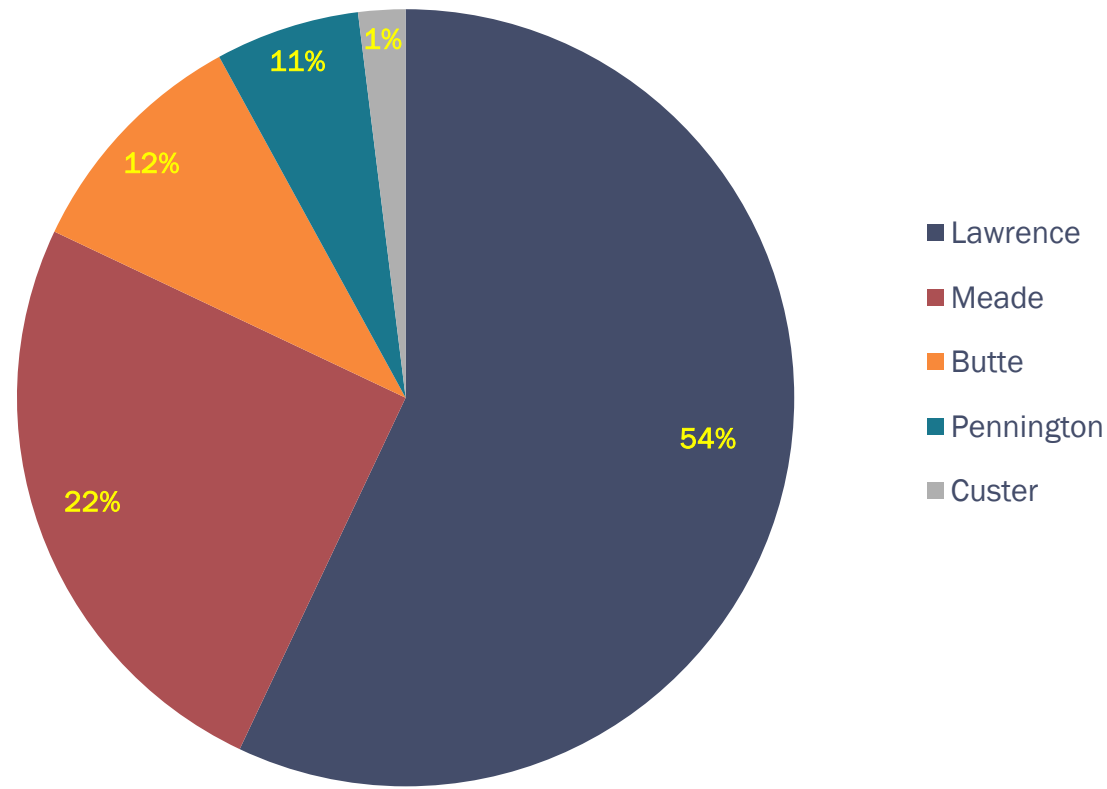
➤ Projects Update

- Completed Boston Expansion Permitting in Aug 2023
- Initiated mining activities in the Boston Expansion area
- Continued backfilling of Green Mountain Pit
- Completed water quality studies and successful pilot treatment testing at False Bottom Spring/historic Bald Mountain Tails area
- Initiated construction of new public access road
- Initiated use of drone mapping and spraying for weed control
- Successful implementation of proximity awareness tech

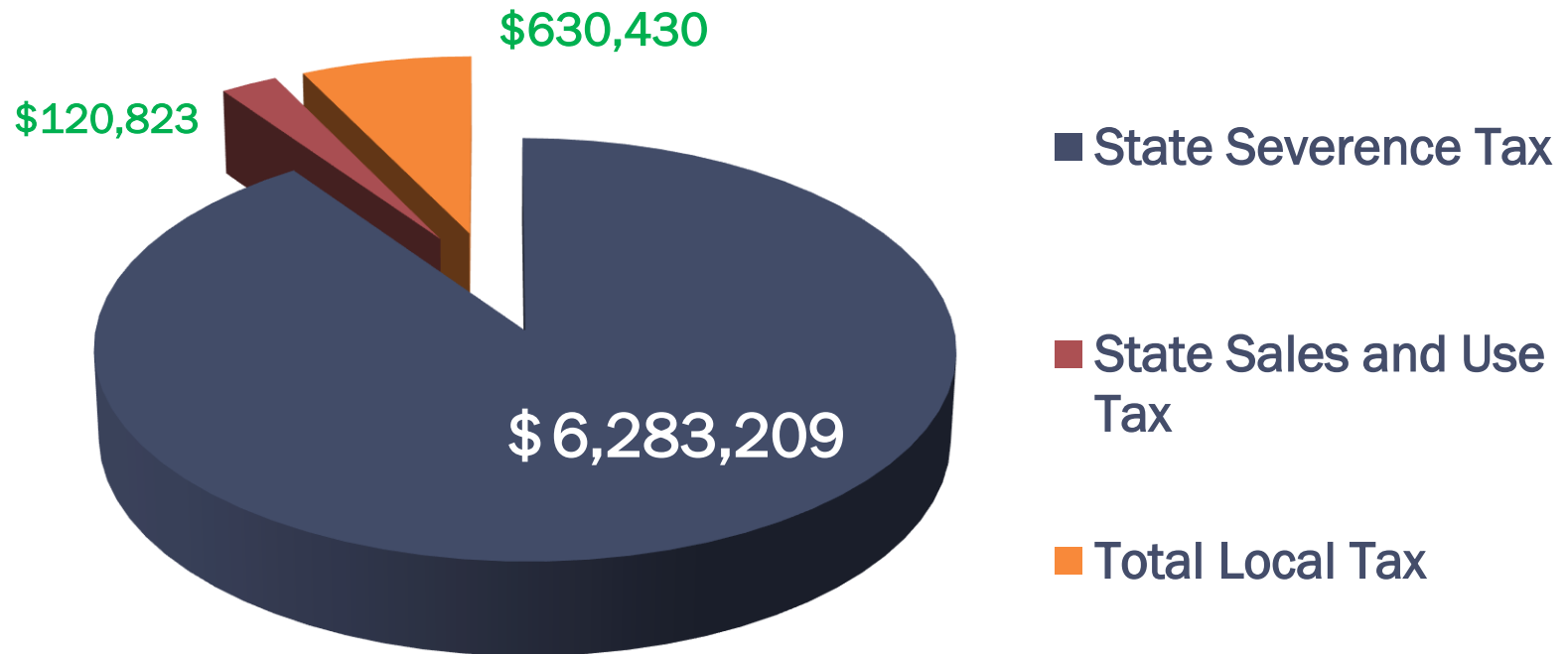


Wharf 2023 payroll was \$32 million with benefits (8% increase from 2022)
- Approximately \$24 million without benefits

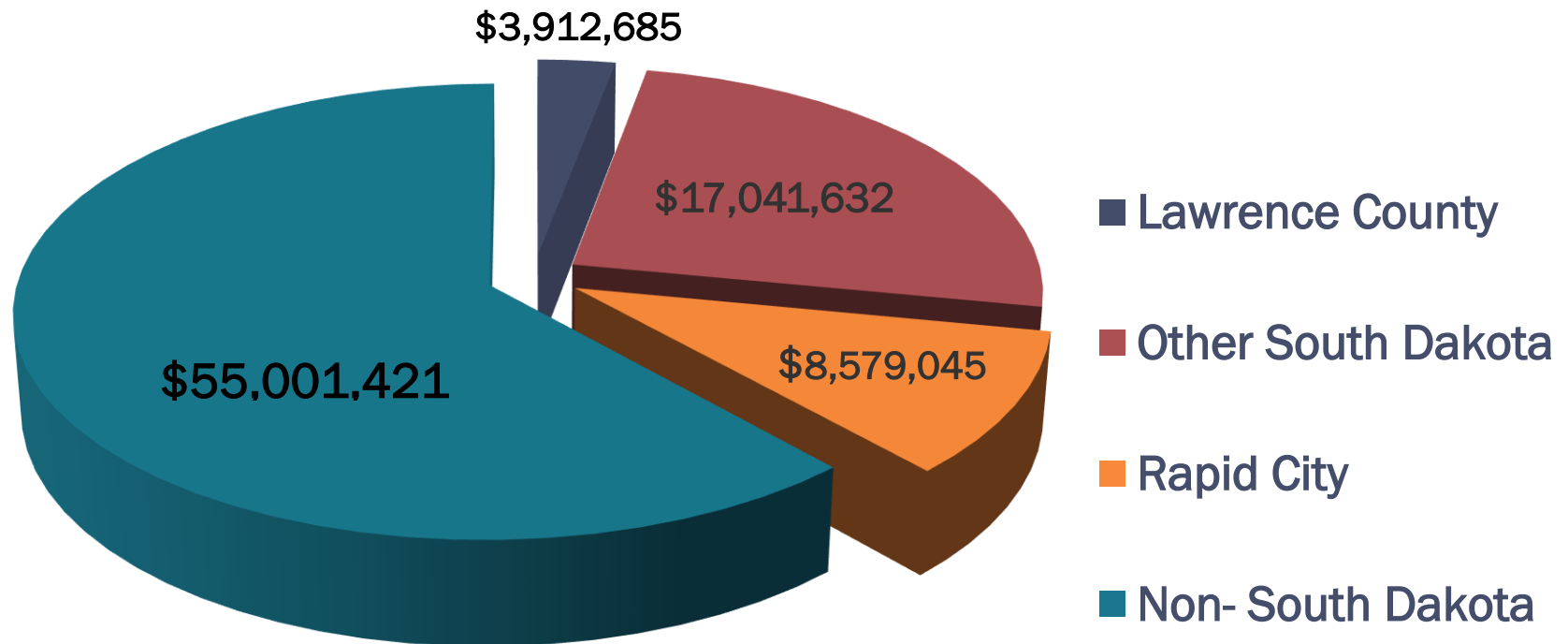
Population by County



\$7.04 million paid in Total Taxes in 2023



2023 Purchases over \$84 million

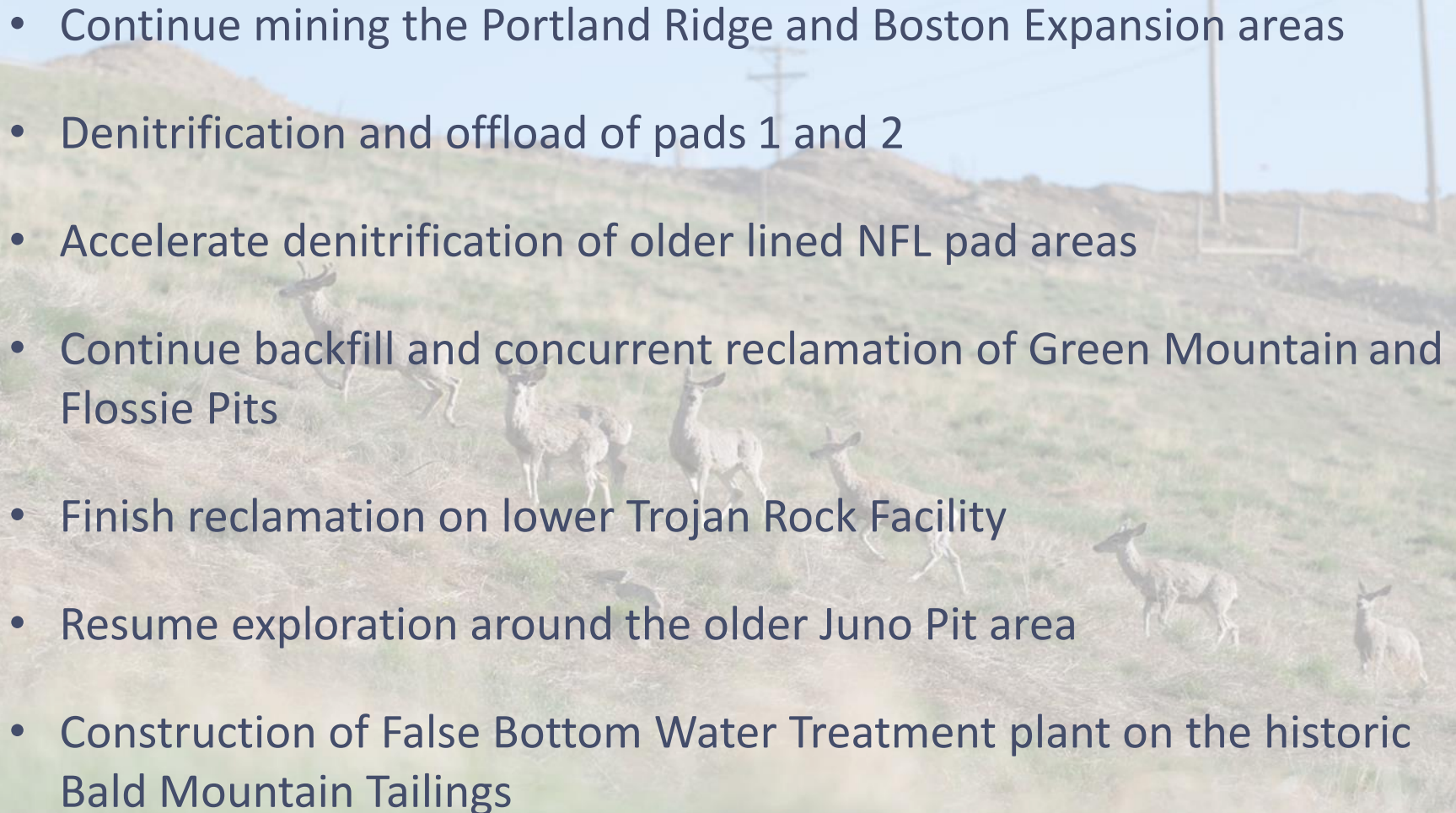


> Community Support & Engagement

- Wharf donated \$212,000 to community groups, schools, athletic programs, and numerous other local charities in 2023
- Local scholarships issued by Wharf in 2023 exceeded \$52,000 dollars
- Over 50 different local entities and school groups received donations from Wharf in 2023, including Lead Boys & Girls Club, the Handley Center, the Lead and Deadwood Chambers, Feeding Deadwood, Black Hills Mining Museum, Wellfully, and United Way
- In 2023, crossed the \$600,000 milestone in total local donations that have been issued from the Wharf Sustainable Prosperity Fund since its 2012 inception



> 2024 Plans

- 
- Continue mining the Portland Ridge and Boston Expansion areas
 - Denitrification and offload of pads 1 and 2
 - Accelerate denitrification of older lined NFL pad areas
 - Continue backfill and concurrent reclamation of Green Mountain and Flossie Pits
 - Finish reclamation on lower Trojan Rock Facility
 - Resume exploration around the older Juno Pit area
 - Construction of False Bottom Water Treatment plant on the historic Bald Mountain Tailings



Questions?

Gilt Edge Mine Superfund Site 2024 Annual Update



Agencies Involved



US Environmental Protection Agency (EPA)



US Army Corps of Engineers (USACE)

EPA's site contract manager for the Gilt Edge Superfund Site



SD Department of Agriculture and Natural Resources (DANR)

Remediation Costs

- Currently, EPA pays 90% and the State pays 10% of remediation costs
- Once Superfund cleanup is completed, the State will be responsible for 100% of the water collection, treatment and site maintenance costs

State Gilt Edge Funds

as of 3/31/2024

Forfeited bond plus interest	\$ 9,138,220
Settlement payments*	
plus interest	\$11,005,773
Agnico Lease Payments	\$ 14,366
(total through March 2024)	
	<hr/>
Total	\$20,158,360

March 2023 total \$19,722,697

*From Potential Responsible Parties (PRP)

Gilt Edge Mine Superfund Site



Operable Unit 1 (Acid Rock Piles and Open Pits)

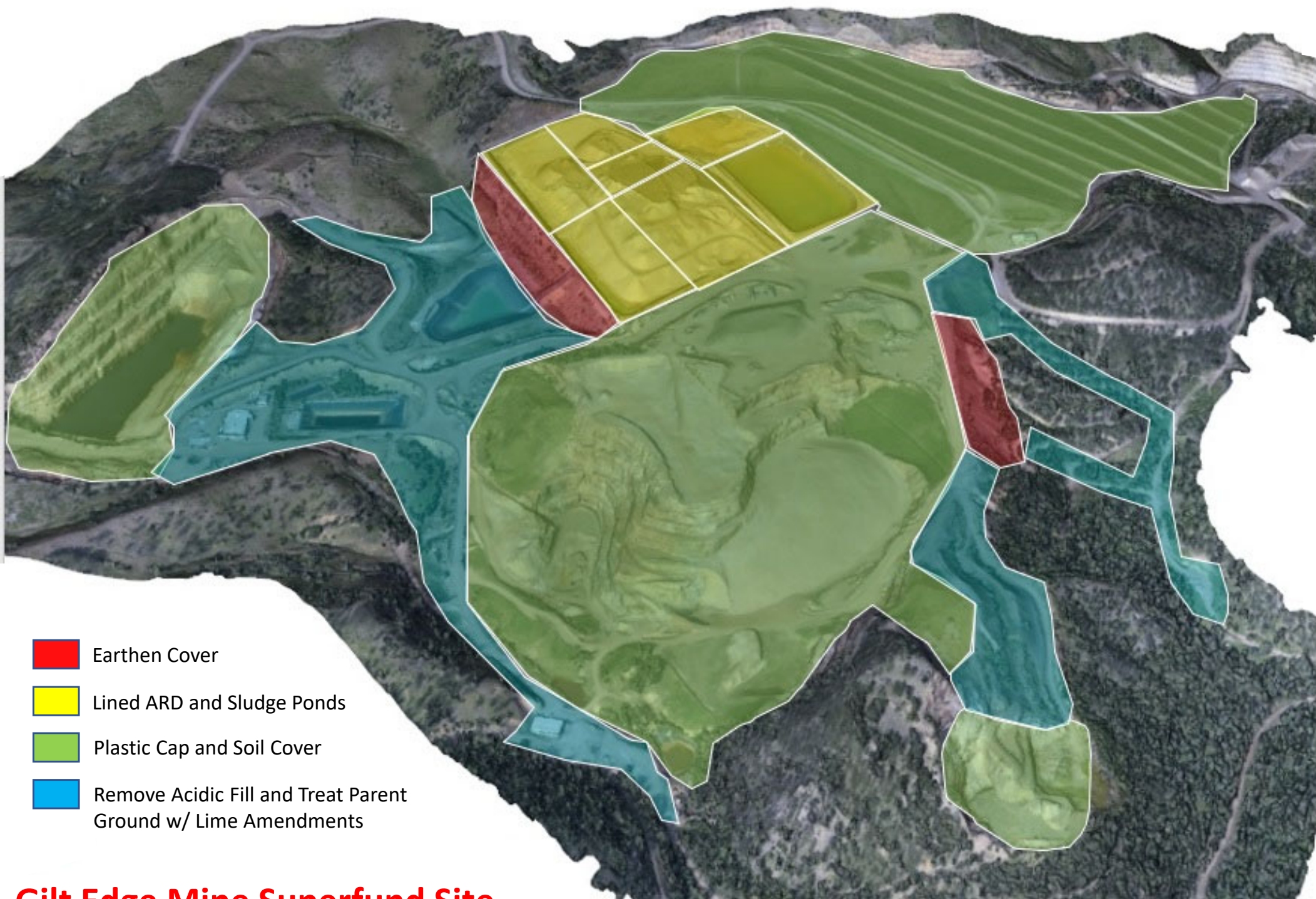
Operable Unit 3 (Ruby Waste Rock Dump)

Operable Unit 2 (Water Treatment)

0 0.25 0.5 1 Miles

A red scale bar with markings at 0, 0.25, 0.5, and 1 mile.

The boundaries, site features, and mineral survey parcels depicted on this map are a graphical representation and should not be used for legal purposes.



Gilt Edge Mine Superfund Site
Surface Features of EPA's Final Site Remedy

2023 Activities Summary

- Primary activities consisted of acid water collection and treatment activities and normal site maintenance.

2023 Acid Water Treatment Update – OU2



HydroGeoLogic, Inc. (HGL)

- Site contractor
- HGL has 6 employees on site
 - Manager, Mechanic, 4 Plant Operators
- Renewed contract for additional 5 years

2023 Acid Water Treatment

Volume Treated

86.4 million gallons

66 million gallons in 2022

63.9 million gallons in 2021

Water in storage
on 1/1/24

40.0 million gallons

25.3 million gallons in 2022

24.1 million gallons in 2021

2023 Weather Events

- No major weather events in 2023
- Overall annual precipitation in 2023 was 29.97 inches compared to 22.85 inches in 2022

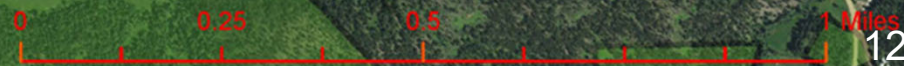
Gilt Edge Mine Conveyance Act

- Approved in December 2022.
- In February 2023, state submitted a letter requesting purchase of the USFS properties.
- Agreement of Intent – outlines responsibilities of USFS and State during land purchase process signed by State in March 2024.
- State working on contract to hire a land surveyor and platter – goal to have land surveying and platting complete by 4th Qtr 2024.
- Work with USFS on remainder of studies and activities required for land purchase through 2025.
- Complete land purchase early 2026.

Gilt Edge Mine Superfund Site

Legend

- USFS Conveyance Act Boundary
- State of South Dakota
- US Forest Service
- USFS Conveyance Act Property: 267 Acres



Agnico Eagle USA Limited

- In 2023, EPA, SD DANR, and Agnico entered into an administrative settlement for reuse assessment and payment of response costs by a prospective lessee.
- Agreement summary:
 - Agnico is to pay EPA and SD DANR oversight costs and \$2.5M/yr for on-going Superfund site operations and maintenance
 - Allows Agnico three years to gather data and drill boreholes at the site and a total of four years to decide if remining the site is feasible.

Agnico Eagle USA Limited

- If Agnico decides it's feasible to remine the Superfund Site, they will need to enter into a Consent Decree Agreement with EPA and SD to set the terms and conditions on applying for a mine permit and deferring the Superfund cleanup.
- If Agnico decides it's not feasible to remine the site, the EPA Superfund cleanup would resume at the site.

Questions?



**NOTICE OF FILING
APPLICATION FOR LARGE SCALE MINE PERMIT
BENTONITE PERFORMANCE MINERALS, LLC**

Bentonite Performance Minerals, LLC, 554 US Highway 212, Belle Fourche, South Dakota 57717, hereby gives notice that an application for a permit to mine bentonite has been filed with the South Dakota Department of Agriculture and Natural Resources for its proposed Security Project. The resident agent is Capitol Corporate Services, Inc., 300 South Phillips Avenue, Suite 300, Sioux Falls, SD 57104. The legal location of the proposed operation is Portions of Sections 31 and 32; T9N-R2E, Butte County. The general location is approximately two miles northwest of Belle Fourche, South Dakota.

Bentonite Performance Minerals plans to use cut and fill mining procedures to mine bentonite from pits ranging in depth from zero to 40 feet and in size from two to ten acres. The bentonite will be hauled on Butte County 3 V Road (a.k.a. 3 View Road) and US Highway 212 to Bentonite Performance Minerals' processing plant in Colony, Wyoming. Each pit will be backfilled with overburden from other pits as mining is completed. About 57.3 acres will be mined and a total of approximately 83 acres of permitted affected land will be disturbed during the project. Mining is expected to start during the third or fourth quarter of 2024, or after the mine permit is issued, and will be completed by December 31, 2031. Reclamation will occur concurrently with the mining operation. The proposed future use of the affected area is rangeland for livestock grazing, which is the current use of the proposed mine area.

The application is available for review at the Minerals, Mining, and Superfund Program, 523 East Capitol Avenue, Pierre, South Dakota, or on the Minerals, Mining, and Superfund web page at <http://danr.sd.gov/Environment/MineralsMining/Exploration/NewMinePermits.aspx>. The application is also available for public review at the Butte County Register of Deeds office in Belle Fourche, South Dakota. Comments may be submitted in writing or online at <http://danr.sd.gov/public/default.aspx>. Written objections to, statements in support of, or petitions to intervene and become a party to the proceedings pursuant to ARSD 74:29:01:09 must be filed with the Department of Agriculture and Natural Resources no later than June 4, 2024. Information about the contents of a petition can be found in ARSD 74:09:01:01 at <https://sdlegislature.gov/Rules/Administrative/26972>.

The permit will be issued by the department if no petitions to intervene are received and if the department's recommendation is for approval or conditional approval. The department will issue its recommendation on June 18, 2024. If no petitions contesting the recommendation are received within seven days after the issuance of the recommendation, the department's recommendation will become effective June 25, 2024. The permit application will be approved, conditionally approved, or denied accordingly.

Persons desiring further information may contact Eric Holm, Minerals, Mining, and Superfund Program, at (605) 773-4201.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 3, 2024

MEMO TO: Members of the Board of Minerals and Environment

FROM: *JW* Jim Wendte, Administrator, Waste Management Program

SUBJECT: Solid Waste Permit Actions

Listed below are the solid waste permit actions since my last memo dated October 4, 2023.

Individual Permits Public Noticed and Issued

1. Town of Buffalo – restricted use site (five-year renewal)
2. City of Britton – restricted use site (five-year renewal)
3. Irene-Wakonda School District – construction and demolition debris disposal site (five-year renewal)
4. City of Elk Point – restricted use site (five-year renewal)
5. City of Lennox – restricted use site (five-year renewal)
6. Town of Kranzburg – restricted use site (five-year renewal)
7. Windy Flats (Box Elder) – restricted use site (five-year renewal)
8. City of Canistota – restricted use site (five-year renewal)
9. City of Canton – restricted use site (five-year renewal)
10. City of Beresford – restricted use site (five-year renewal)
11. Town of Langford – restricted use site (five-year renewal)
12. Tri-County Landfill Association (Pukwana) – municipal solid waste landfill (five-year renewal)
13. Ronald Peterson (Mitchell) – construction and demolition debris disposal site (five-year renewal)
14. City of Alcester – restricted use site (five-year renewal)
15. City of Willow Lake – restricted use site (five-year renewal)
16. H&R Salvage (Mitchell) – waste tire storage and processing (five-year renewal)
17. City of Salem – yard waste compost site (five-year renewal)
18. City of Clark – restricted use site (five-year renewal)
19. Town of Rosholt – restricted use site (five-year renewal)
20. Town of Northville – restricted use site (five-year renewal)
21. City of Huron – construction and demolition debris disposal site (five-year renewal)
22. City of Woonsocket – restricted use site (five-year renewal)
23. Town of Columbia – restricted use site (five-year renewal)

General Permit Authorizations Issued

1. City of Gettysburg – restricted use site (five-year renewal)
2. City of Marion – restricted use site (five-year renewal)
3. City of Blunt – restricted use site (five-year renewal)

4. Rosane Enterprises (Hot Springs) – solid waste transfer station (five-year renewal)
5. City of Newell – restricted use site (five-year renewal)
6. Town of Orient – restricted use site (five-year renewal)
7. Town of Onaka – restricted use site (five-year renewal)
8. Bon Homme County (Tyndall) – restricted use site (five-year renewal)
9. Town of Raymond – restricted use site (five-year renewal)
10. City of Lake Andes – restricted use site (five-year renewal)
11. City of Wessington – restricted use site (five-year renewal)
12. Boyer Sand & Rock (Alcester) – construction and demolition debris disposal site (five-year renewal)
13. City of Parkston – restricted use site (five-year renewal)
14. City of Groton – restricted use site (five-year renewal)