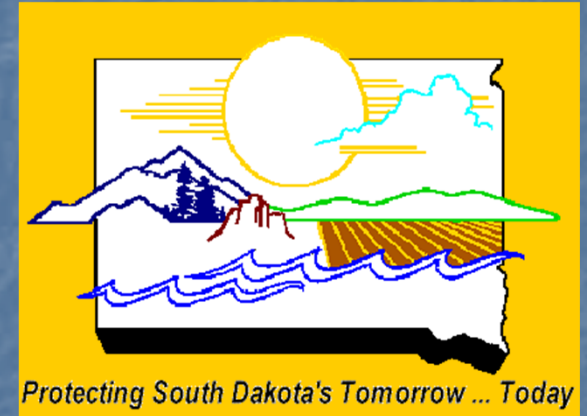


# Gilt Edge Mine Superfund Site 2018 Annual Update



South Dakota  
DENR



# 2018 Acid Water Treatment Update



HydroGeoLogic, Inc. (HGL)

- Site contractor
- HGL has 6 employees on site
  - Manager, Mechanic, 4 Plant Operators

# 2018 Acid Water Treatment

Volume Treated

66 million gallons

Water in storage

on 12/31/18

37.5 million gallons

The plant did not operate from January 1 to July 9;  
due to low site precipitation.

All water discharged during 2018 met compliance  
standards

# State Gilt Edge Funds

## January 2019

Forfeited bond plus interest	\$8,377,000
Settlement payments* plus interest	\$10,088,000
	<hr/>
<b>Total</b>	<b>\$18,465,000</b>
Interest Rate for 2018	1.19 %

\*From Potential Responsible Parties (PRP)

# 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 treatment and site maintenance costs

# 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)



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

# Operable Unit 1 (OU1) Phase 1

## Work conducted in 2017

- Construction of North Access Road
- New pipeline system
- New sludge cell
- Remove sludge from Sunday Pit
- Backfilling of Sunday Pit

# Operable Unit 1 (OU1) Phase 1

Work continued through 2018

- Finished backfill and final grading work in Sunday Pit
- Remove sludge from Dakota Maid Pit
- Partial backfilling of Dakota Maid Pit
- Sorting gravels on Heap Leach Pad



# Agencies Involved



US Environmental Protection Agency (EPA)



US Army Corps of Engineers (USACE)  
EPA's construction contract manager for the Gilt Edge Superfund Site



SD Department of Environment and Natural Resources (DENR)

# Contractors During OU1 Phase 1 Remedial Action



HydroGeoLogic, Inc. (HGL)

- Site management contractor
- Water treatment



CDM Smith


- Remediation Plan Design



Tetra Tech

- OU1 Phase 1 General Contractor: Pit backfill, sludge removal and storage, road building, pipeline construction

# 2018 OU1 Phase 1 Work



Summer 2018 –  
Backfill Dakota Maid  
Pit with (82,800  
yards from Dakota  
Maid fill)

Spring/Summer 2018 –  
Dewater and remove sludge  
from Dakota Maid Pit

# Sunday Pit backfill and grading



May 2018

# Sunday Pit backfill and grading



June 2018

# Sunday Pit backfill and grading



August 2018

# Dakota Maid Pit Dewatering



May 2018

# Dakota Maid Pit Dewatering



May 2018



# Dakota Maid Pit Dewatering



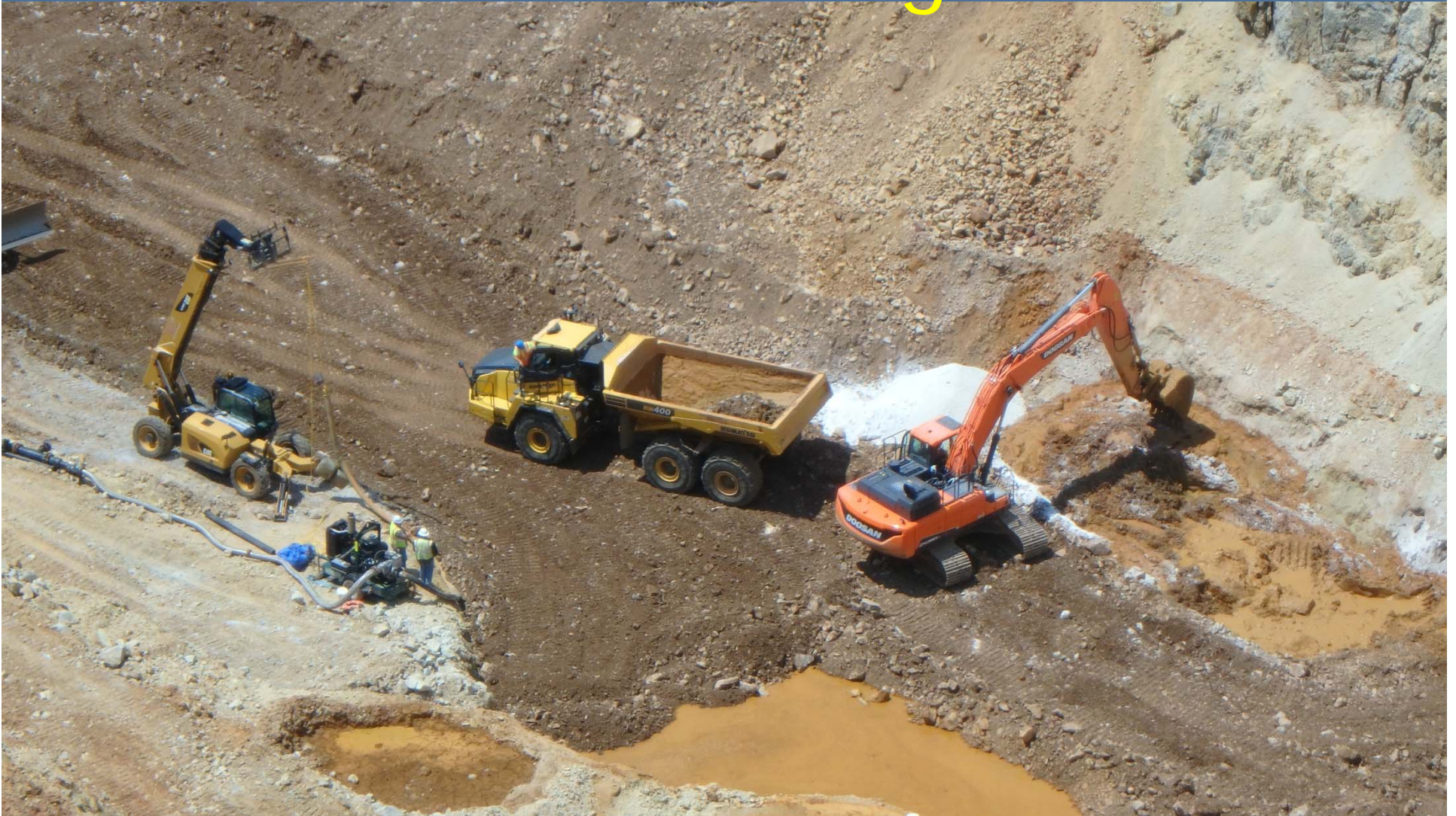
June 2018

# Dakota Maid Pit Dewatering



July 2018

# Dakota Maid Pit Sludge Removal



# Dakota Maid Water Gallery Installation



August 2018

# Dakota Maid Water Gallery Installation



# Closing King Adit



# Plugging King Shaft



# Plugging King Shaft





# Closure of winze in Dakota Maid Pit



# Dakota Maid Backfill



# Dakota Maid Backfill and Observation Port Installation



# Dakota Maid Final Grade



Sept 2018

# Heap Leach Pad Material Sorting



# OU1 Phase 1 Costs

	<u>Contract Cost</u>
OU1 Phase 1-2017	\$13,289,000
OU1 Phase 1-2018	<u>\$ 6,039,000</u>
<b>Total (Estimated)</b>	<b>\$19,328,000</b>

EPA will be using settlement money, so no State match will be required for OU1 Phase 1 remedial action.

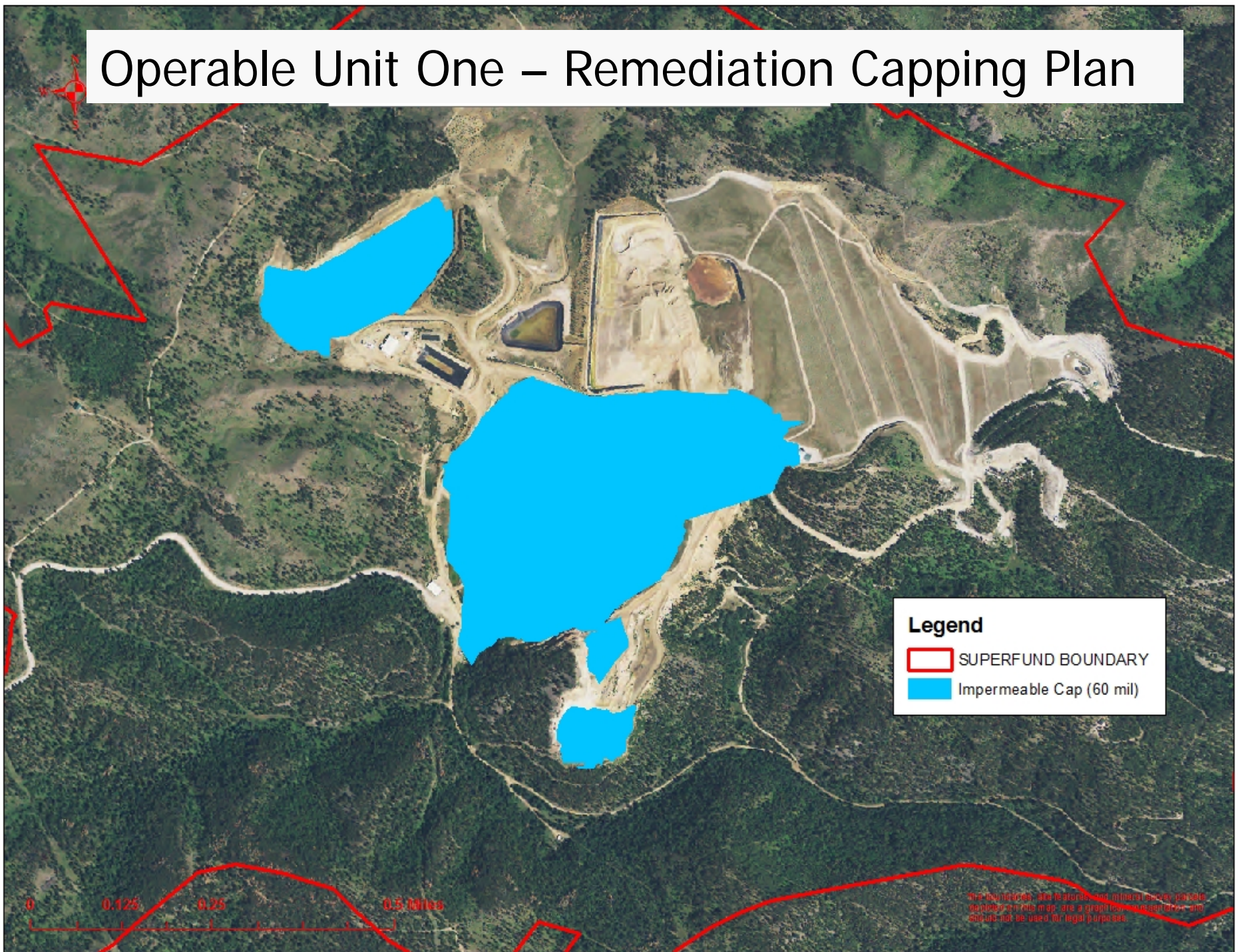
# Future Earthwork

- Complete backfilling Sunday and Dakota Maid Pits followed by capping
- Backfill and cap Anchor and Langley Pits
- Finish converting leach pad into water and sludge storage cells

Cleanup will proceed in phases as EPA has federal Superfund money available.

Future work phases will require 10% State match.

# Operable Unit One – Remediation Capping Plan





# Administrative Settlement Agreement and Order on Consent

- On February 12, 2018, EPA, the State of South Dakota and Agnico Eagle Mines Ltd. entered into an agreement and order on consent (AOC) for Agnico to perform certain remedial investigative activities at the Gilt Edge Mine Superfund site.

# AOC Agreement

- Agnico will conduct environmental investigation work focusing on identifying contaminant sources, specifically cadmium, entering Strawberry Creek
- The work will include:
  - Drilling boreholes and collecting samples and information on fracture zones and groundwater flow
  - Collecting surface soil and sediment samples
- The work will also include some facility upgrades to support the investigation work, such as telecommunications improvements
- Agnico may utilize information from the work to determine if a viable mineral resource still remains at the Site

# AOC Agreement

- DENR is continually looking for ways to reduce site operation and reclamation costs, which ultimately reduce federal and state taxpayer costs
- Agnico's investigation will provide geologic and mineral information that can be used by EPA and DENR to develop future cleanup and reclamation plans
- Agnico will also be able to analyze the geologic information to assess the site's mineral potential for a redevelopment project that could also decrease reclamation and operation costs

# Agnico Project Update

- Drilling project started in 2018 and continuing through June 2019.
- Will assess potential surface sources of contamination along Strawberry Creek in 2019.
- Facility upgrades to Office Building completed late 2018 through early 2019
- Telecommunication upgrades to be made in 2019.

# Facility Upgrades - Before



# Facility Upgrades - Before



# Facility Upgrades - After



Facility Upgrades - After





# Facility Upgrades - Before



# Facility Upgrades - After



# Questions?



Heap Leach Pad  
August 2017