

**Leviathan Mine
January 2014 TAC Meeting
Lahontan Water Board**



05/17/2013 12:48



- Tasks in 2013:
- Summer Pond Water Treatment
 - Flow and Stage Monitoring
 - Routine Maintenance
 - Revegetation Study

2013 Pit Clarifier Sludge Removal and Disposal



06/25/2013 08:05

- Approximately 324 tons of sludge were hauled off site for disposal in late June.
- Sludge generated during the treatment of 2.8 million gallons of AMD in 2012.

2013 Summer Pond Water Treatment Startup



- Assembly of pond water treatment plant
- Discharge of treated AMD to the Pit Clarifier began on July 8, 2013
- Discharge of treated AMD to Leviathan Creek began on July 11, 2013

2013 Summer Pond Water Treatment

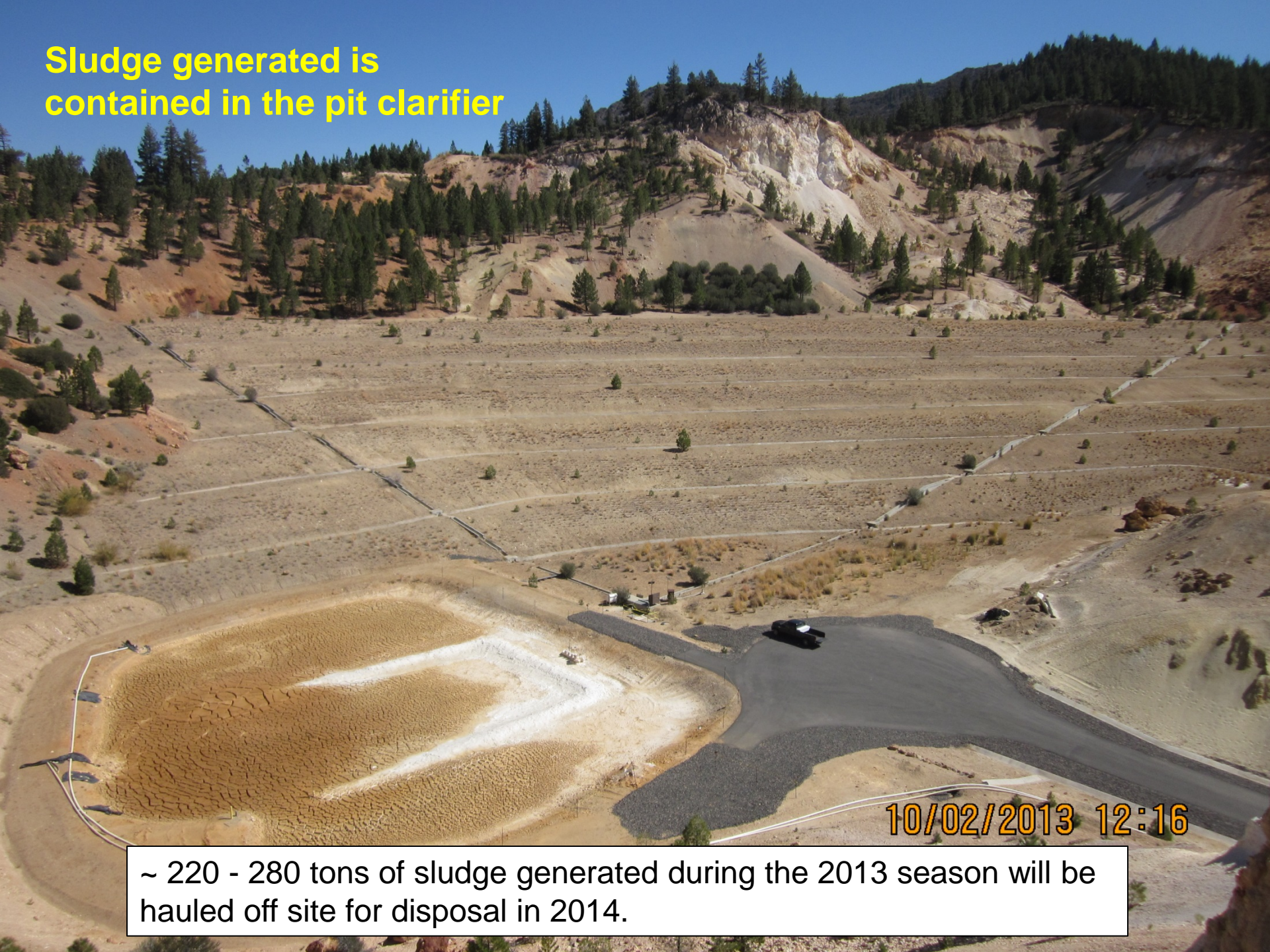
- 2.66 million gallons of AMD treated and discharged
- Influent pH range 2.30 to 2.68 SU
- Influent average TDS 7,483 mg/L
- Field and lab data show all USEPA discharge criteria met except total recoverable selenium

- 47.7 tons lime (dry weight)
- 2,413 gallons diesel
- 233 gallons gasoline
- 270.4 pounds of flocculent
- 4,284 mg lime / liter AMD

07/24/2013 09:33

An aerial photograph of a water treatment pond. The pond is irregularly shaped and contains water that is a mix of bright green and brownish-orange. The pond is surrounded by a dirt road and a large, light-colored earthen embankment. In the background, there is a dense forest of evergreen trees on a hillside. A dark car is parked on the road near the pond. The sky is clear and blue.

Sludge generated is contained in the pit clarifier



10/02/2013 12:16

~ 220 - 280 tons of sludge generated during the 2013 season will be hauled off site for disposal in 2014.

Maximum capacity is available
for AMD storage entering
the 2013/14 winter



10/02/2013 12:19

Ponds 2 North and 2 South following the 2013 treatment season

Flow and stage monitoring



12/04/2013 13:32

- 15 locations during the 2013 water year

2013 Routine Maintenance



Routine Maintenance

- Removed accumulated sediment from storm water conveyance ditches
- Repaired perimeter fence
- Rock and gravel armoring
- Sprayed to eradicate invasive Tall Whitetop, Dyer's Woad, and Spotted Knapweed

Questions?

10/09/2013 12:27