

Reserve Silica Corporation Cleanup Site Preliminary Data Gaps

January 30, 2018

Prepared by Department of Ecology

Following is a preliminary list of data gaps identified by Ecology based on our knowledge of the Site to date which is largely informed by Holcim's investigations of the LDA and DSP and the November 2017 Remedial Investigation report prepared by Aspect Consulting for Reserve Silica. We provide this list now to assist the PLPs in their planning. When we resume developing the Agreed Order for a Remedial Investigation, Feasibility Study, and draft Cleanup Action Plan, we will further discuss data gaps, and additional gaps may be identified at that time.

The list starts with Site-wide data gaps and is followed by data gaps organized by lot number or name, as used in the November 2017 Remedial Investigation report.

Site-Wide Data Gaps

1. A beneficial use evaluation of groundwater in the area, including an inventory of domestic wells within a 1-mile radius of the Site Property Boundary. Verification of groundwater use on adjacent properties, including the BAJA property, with sampling and surveying of identified downgradient groundwater wells.
2. Information on the existing Class B Water System registered by Reserve Silica and the location/log of the well associated with this system.
3. Information on the City of Kent's Well Head Protection Plan and the potential impacts of Site contaminants on their domestic water supply.
4. A detailed figure showing the coal tunnel/workings beneath the Site and including surface features such as (but not limited to) monitoring wells, LDA, DSP, surface water, and roads.
5. Information on the former coal mining operation and its known or potential impact on soil, groundwater, surface water, and sediment.
6. Information on background metals concentrations in local and regional groundwater and soil.

Plant Site and Former Settling Ponds Area Data Gaps

Plant Site

1. Hazardous materials storage area including above ground waste oil tank, and equipment storage area – additional sampling/testing of soil that could have been impacted by spills from the waste oil tank and in the equipment storage area. Analyze samples in accordance with MTCA Table 830-1, Required Testing for Petroleum Releases.

2. Diesel tank – when removed, soil and UST pit water and groundwater testing to evaluate extent of affected soil and confirm adequate soil removal. Include analytes in Table 830-1.
3. Transformers – investigation of soil in area for possible PCB contamination or explanation of why it's not a concern.
4. Further delineation of the naphthalene and cPAH exceedances near AB-2.
5. Delineation of extent of coal waste in subsurface and assessment of hazard – effect on groundwater and on sediments in Ravensdale Lake.
6. Information on the BNRR 1,100-foot exploratory well, including well log if available, and either information about the abandonment or try to locate on-site.
7. Sampling and analysis of drainage ditch sediments to evaluate impact from historic spills and discharges containing fuel and oil, as documented in past Ecology site inspections. Analyze samples in accordance with MTCA Table 830-1, Required Testing for Petroleum Releases.

Wetland A/Former Settling Ponds Area

8. Delineation of the extent of coal waste in former settling ponds and assessment of impact on soil, groundwater, and sediments.
9. Assessment of Wetland A sediment through sampling and analysis.
10. Information on former and current use of the southwest corner pond and, if appropriate, sediment and surface water sampling.
11. Information on former monitoring well MW-5 (referenced in former reports) – its current status, well log, any available sampling results.

Lot 1 Data Gaps

1. Coal mine waste at north end –potential for hazard.
2. Confirmation, in conjunction with Lot 6 investigations, that groundwater beneath Lot 1 is not affected by CKD disposal in DSP.
3. Haul road – is slag present?

Lot 2 Data Gaps

1. Confirmation, in conjunction with Lot 6 investigations, that groundwater beneath Lot 2 is not affected by CKD disposal in DSP.

Lot 3 Data Gaps

1. Confirmation that Wetland B is not adversely affected by site activities through sampling and analysis of sediment.
2. Confirmation, in conjunction with Lot 6 investigations of groundwater flow direction, that groundwater beneath Lot 3 is not affected by CKD disposal in DSP.

Lot 4 Data Gaps

1. Stormwater pond west of inert waste landfill area – confirmation it is not adversely impacted by discharges from fill areas. Test water and sediment quality.
2. Confirmation that groundwater quality in area west of Lower Pit is not adversely impacted by fill areas.
3. Northern panhandle – extent of CKD impacts on groundwater, surface water, and sediment.

Lot 5 Data Gaps

1. List of materials that have been used to fill the pits.

Lot 6 Data Gaps

1. History of CKD placement and management in LDA and DSP.
2. History of infiltration ponds.
3. Properties of CKD – lab analysis.
4. Properties of LDA leachate - full analysis.
5. Groundwater flow:
 - Groundwater flow direction at north end of Lot 6, between plant site and infiltration ponds. Use all groundwater elevations available.
 - Groundwater flow beneath and in vicinity of DSP, including mine workings.
 - Groundwater flow into and out of LDA.
 - Effects of faults on groundwater flow
6. Extent of CKD outside of LDA.
7. Extent of groundwater, surface water, and sediment impacts to the west, including adjacent parcel on which infiltration ponds are located.
8. Portal discharge water quality, including metals analyses.
9. Slag:
 - Presence of slag in lower haul road south of the area tested and in the upper haul road.
 - Leachability testing using liquid that simulates groundwater with high pH.
 - Cross sections of haul road
 - Haul road construction history
10. Analysis of DSP groundwater data for trends, any change noted after improvement to cover.

(End)