



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources

Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

October 17, 2018

Jay A. Steinberg
Nevada Environmental Response Trust
35 East Wacker Drive, Suite 1550
Chicago, IL 60601

Re: **Tronox LLC (TRX) Facility**
Nevada Environmental Response Trust (Trust) Property
NDEP Facility ID #H-000539
Nevada Division of Environmental Protection (NDEP) Response to: *Data Validation*
Summary Report AP Area Treatability Study

Dated: July 27, 2018

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and provides comments in Attachment A. A revised Deliverable should be submitted **by 01/15/2019** based on the comments found in Attachment A. The Trust should additionally provide an annotated response-to-comments letter as part of the revised Deliverable.

Please contact the undersigned with any questions at wdong@ndep.nv.gov or 702-486-2850 x252.

Sincerely,

Weiquan Dong, P.E.
Bureau of Industrial Site Cleanup
NDEP-Las Vegas City Office

WD:cp

EC:

James Dotchin, NDEP BISC Las Vegas
Carlton Parker, NDEP BISC Las Vegas
Allan Delorme, Ramboll Environ
Alison Fong, U.S. Environmental Protection Agency, Region 9
Andrew Barnes, Geosyntec
Andrew Steinberg, Nevada Environmental Response Trust
Anna Springsteen, Neptune & Company Inc.
Betty Kuo Brinton, MWDH2O
Brenda Pohlmann, City of Henderson
Brian Waggle, Hargis + Associates

Carol Nagai, MWDH2O
Chinny Esakkiperumal, Olin Corporation
Chris Ritchie, Ramboll Environ
Chuck Elmendorf, Stauffer Management Company, LLC
Dan Pastor, P.E. TetraTech
Dave Share, Olin
Dave Johnson, LVVWD
David Parker, Central Arizona Water Conservation District
Derek Amidon, Tetrattech
Ebrahim Juma, Clean Water Team
Ed Modiano, de maximis, inc.
Eric Fordham, Geopentech
Frederick Perdomo, AG Office
Gary Carter, Endeavour
George Crouse, Syngenta Crop Protection, Inc.
Harry Van Den Berg, AECOM
Jay Steinberg, Nevada Environmental Response Trust
Jeff Gibson, Endeavour
Jill Teraoka, MWDH2O
Joanne Otani
Joe Kelly, Montrose Chemical Corporation of CA
Joe Leedy, Clean Water Team
John Edgcomb, Edgcomb Law Group
John Pekala, Ramboll Environ
Kelly McIntosh, GEI Consultants
Kevin Fisher, LV Valley Water District
Kirk Stowers, Broadbent & Associates
Kirsten Lockhart, Neptune & Company Inc.
Kim Kuwabara, Ramboll Environ
Kurt Fehling, The Fehling Group
Kyle Gadley, Geosyntec
Kyle.Hansen, Tetrattech
Lee Farris, BRC
Marcia Scully, Metropolitan Water District of Southern California
Maria Lopez, Water District of Southern California
Mark Duffy, U.S. Environmental Protection Agency, Region 9
Mark Paris, Landwell
Michael J. Bogle, Womble Carlyle Sandridge & Rice, LLP
Michael Long, Hargis +
Mickey Chaudhuri, Metropolitan Water District of Southern California
Nicholas Pogoncheff, PES Environmental, Inc.
Orestes Morfin, CAP
Paul Black, Neptune and Company, Inc.
Paul Hackenberry, Hackenberry Associates, LLC
Patti Meeks, Neptune & Company Inc.
Peggy Roefer, CRC
Ranajit Sahu, BRC
Richard Pfarrer, TIMET
Rick Kellogg, BRC
R9LandSubmit@EPA.gov
Scott Bryan, Central Arizona Project
Steve Clough, Nevada Environmental Response Trust
Steven Anderson, LVVWD
Tanya O'Neill, Foley & Lardner L
Todd Tietjen, SNWA

Attachment A

1. **Table 2, asbestos method:** This table identifies EPA 600R (*Method for the Determination of Asbestos in Bulk Building Materials*) as the method used for the analysis of asbestos in soil. Section 3.2 of the NDEP *Guidance on Data Validation for Asbestos Data in Soils* (July 24, 2012) identifies USEPA Method 540-R-97-028 (USEPA 540R), which uses transmission electron microscopy, as the method employed at the BMI site for analyzing asbestos in soil. As assessment of the analysis method is part of data validation (Appendix I, Step 3 of *Guidance on Data Validation for Asbestos Data in Soils*), the DVSR should note that the utilized method is not the standard BMI method, compare it to the standard BMI site method and discuss potential effects on the PARCCS parameters, especially comparability.
2. **Table 1 and EDD:** Please include the reporting basis for nitrate (e.g., as nitrogen, as NO₃, etc.) in the text and the EDD.
3. **Section 2.1, last paragraph:** Possible causes of poor precision would not normally include matrix interference, as matrix interference would be expected to have the same effect on duplicate and parent (or MS and MSD) samples. Sample heterogeneity can cause poor precision. Please consider revising this statement.
4. **Section 2.3, next to last paragraph:** To clarify, consider revising this sentence to include the words in **bold**: Contaminants found in both the environmental sample and the blank sample are assumed to be laboratory artifacts if both values are less than the PQL or if a sample result and blank contaminant value are greater than the PQL and **the sample result is less than 10 times the blank contaminant value.**
5. **Section 3.1.2:** Please include the number of results qualified in this section.
6. **Section 3.2.2:** The text notes that in cases where dilutions cause low recoveries, no qualifications are applied, and then states that the effect of dilution is assessed on a case-by-case basis. Please include a discussion of the validators reasoning for qualifying/not qualifying diluted samples as was done for the *In-Situ Chromium Treatability Study Results* DVSR.
7. **EDD:** The EDD contains 13 estimated results with a reason code of “e.” Table 5 indicates these results were qualified as the results exceeded the linear range of the calibrations; however, these qualifications are not discussed in the text. Please include a short discussion of these qualifications.
8. **EDD, asbestos units and asbestos sensitivity units:** Per Section 3.5.4 of *Guidance on Data Validation for Asbestos Data in Soils* and item #5 of Appendix I, the analytical sensitivity should be consistent with the method and both represent the amount of airborne asbestos structures per gram of respirable dust or the number of structures per liter of air. The EDD fields result_units and asbestos_sensitivity_unit are populated with “fibers” and “percent,” respectively. Please review the requirements for this field and edit as necessary.

EDD Review

1. As an addition to DVSR comment #9, in the results table, the parameter “Asbestos” has results with result_units of “Fibers”. Please verify that these units are correct.

-
2. In the results table, the "Asbestos" records have an analytical_suite of "PLM", which is not on the list of suites in the EDD guidance. Please verify that the analytical_suite should be updated to "ASB" for "asbestos".