

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

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

May 14, 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: In-Situ Bioelectrochemical Laboratory-Scale Treatability Study Work Plan

Dated: May 7, 2018

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and finds that the document is acceptable with the following comments noted for the Administrative Record:

1. The two reactions types of series—oxidation and reduction of contaminants are central to the concept of this proposed bioelectrochemical laboratory-scale treatability study. These reactions create potential for in-situ treatment of perchlorate, chlorate, hexavalent chromium and chloroform of the area under Unit Buildings 4 and 5 at the same time. Several references that were cited in this work plan confirmed that the bioelectrochemical method has reduced high perchlorate concentration of 50 to 90 mg/l to low perchlorate concentration at a shorter time compared to the biochemical degradation (with addition of substrate). NDEP suggests performing a similar study for the groundwater and soils from Unit Buildings 4 and 5 area if initial successful results from this proposed study are obtained.

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

Sincerely,

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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, Tetratech Ebrahim Juma, Clean Water Team Ed Modiano, de maximis, inc. Eric Fordham, Geopentech 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, Tetratech 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 + Associates Micheline Fairbank, AG Office 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 Scott Bryan, Central Arizona Project Steve Clough, Nevada Environmental Response Trust Steven Anderson, LVVWD Tanya O'Neill, Foley & Lardner L Todd Tietjen, SNWA