



STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor
Leo M. Drozdoff, P.E., Director
Colleen Cripps, Ph.D., Administrator

April 3, 2013

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: *Semi Annual Remedial Performance Report for Chromium and Perchlorate July 2012 to December 2012; Nevada Environmental Response Trust Site, Henderson, Nevada*

Dated: March 1, 2013

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and provides comments in Attachment A. These comments should be addressed in all future Semi-Annual Performance Reports and addressed as applicable in all future Annual Performance Reports. The Trust should provide an annotated response-to-comments letter as part of the next performance reporting Deliverable.

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

Sincerely,

Weiquan Dong, P.E.
Special Projects Branch
Bureau of Corrective Actions
NDEP-Las Vegas City Office

WD:sh

EC: Greg Lovato, Bureau of Corrective Actions, NDEP
Shannon Harbour, NDEP
James Dotchin, NDEP
Adam Baas, Edgcomb Law Group
Allan Delorme, ENVIRON
Andrew Barnes, Geosyntec



Andrew Steinberg, Nevada Environmental Response Trust
Ashley Katri, McGinley & Associates
Betty Kuo, MWDH2O
Brenda Pohlmann, City of Henderson
Brian Rakvica, McGinley & Associates
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Charles K. Hauser, Esq., Southern Nevada Water Authority
Chuck Elmendorf, Stauffer Management Company, LLC
David Hadzinsky, TIMET-HSEA Dept.
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Ed Modiano, de maximis, inc.
Eric Fordham, Geopentech
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Rebecca Shircliff, Neptune and Company, Inc.
Rex Heppie, Ninyo and Moore
Rick Kellogg, BRC
Ron Zegers, Southern Nevada Water Authority
Scott Bryan, Central Arizona Project
Stephen Tyahla, U.S. Environmental Protection Agency, Region 9
Tanya O'Neill, Foley & Lardner LLP
Teri Copeland
Victoria Tyson, TIMET

Attachment A

1. General comment, the Trust should start to increase the mass removal of the current system by focusing on pumping the wells installed in the Inceptor Well Field and the Athens Road Well Field. The focus on these wells is based on maximizing both the perchlorate removal from the two well fields and the system hydraulic and mass loading capacity.
2. Section 2 Area Groundwater Conditions, page 3, 3rd paragraph, in future Deliverables, please add a reference to the NDEP guidance for the water-bearing zone nomenclature (http://ndep.nv.gov/bmi/docs/090106_hydro_litho.pdf).
3. Section 2.1 Interceptor Well Field Area, page 5, Paragraph 3, the model submitted in the April 25, 2012 is just groundwater flow model, not transport model.
4. Section 2.3 Seep Well Field Area, page 7, paragraph 3, the extraction rate for the period of July to December, 2012 is 593.7 gpm, the highest in the previous four years. It is hard to understand why this happened. The efficiency of the perchlorate removal from groundwater in the Seep Well Field is much less than it in the Interceptor Well Field and Athens Road Well Field.
5. Section 3.1 Chromium Plume Configuration, page 8, paragraph 2, the chromium plume map should be added for measuring interim remediation.
6. Section 3.2 On-Site Chromium Treatment System, page 10, paragraph 5, "A lesser amount of chromium is also removed in the FBRs". Please briefly explain how the chromium is removed in the FBRs.
7. Section 4.1 Perchlorate Plume Configuration, page 12, paragraph 4, the perchlorate plume map should be added for measuring interim remediation.
8. Section 4.1.1 Interceptor Well Field Area, page 13, NERT references a difference in TDS concentrations as a means of delineating plumes. Please clarify and discuss whether the plumes are indeed separated or if this is an artifact of the differences in well screen locations versus lithology. Please also include discussion on the possibility of this being the same plume but perhaps more diffuse in one direction laterally and or vertically. Stiff and or Piper diagrams may need to be used to explore this further. The Trust should note that before this analysis is completed, TDS data must be collected of sufficient quality that passes the cation-anion balance tests as discussed in several NDEP guidance documents.
9. Section 4.1.1 Interceptor Well Field Area, pages 12 to 14, the elevated perchlorate concentration coincides with rising groundwater table at the Interceptor Well Field Area, which suggests that additional sources of the perchlorate contribute the perchlorate to the groundwater reservoir. The Trust should investigate and discuss this issue and identify any additional sources of perchlorate.
10. Section 4.1.3 Seep Well Field Area, page 17, paragraph 1, the concentration of perchlorate in the well of PC-133 increased from 0.63 mg/l in May 2012 to 13 mg/l in December 2012. The Trust should investigate and discuss this observation.
11. Table 3, the pumping rate of PC-133 from July 2011 to December 2012 is less than the pumping rate for the period of July 2008 to July 2011. This well has big increase in the perchlorate concentration during the period of July 2012 to December 2012. Please provide justification for decreasing the pumping rate in the well of PC-133 when the pumping rate for most of other wells in the Seep Well Field increased from previous periods.
12. Table 5, the "gpm" from the note should be removed.

13. Table 6, all perchlorate removals from the Seep Well Field are marked as estimated due to malfunctioning flow meter but the Table 4 has the flow rate of each well in the Seep Well Field without an estimation mark. Please check the consistence for Table 4 and Table 6.