

MEMO

Date **June 30, 2020**

To Nevada Environmental Response Trust
From John Pekala, Scott Warner, and Chris Ritchie
Copy to Nevada Division of Environmental Protection

United States Environmental Protection Agency

Subject Las Vegas Wash ZVI-Enhanced Bioremediation Treatability

Study Monthly Progress Report

TASK PROGRESS UPDATE: MAY 2020

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Ramboll US Corporation (Ramboll) has prepared this memorandum which summarizes Ramboll's progress during May 2020 toward successfully implementing the Las Vegas Wash Zero-Valent Iron (ZVI)-Enhanced Bioremediation Treatability Study, formerly known as the Galleria Drive ZVI-Enhanced Bioremediation Treatability Study. Treatability laboratory testing was performed by PRIMA Environmental via subcontract with Ramboll on behalf of NERT.

TASK M18 - LAS VEGAS WASH ZVI-ENHANCED BIOREMEDIATION TREATABILITY STUDY

- Task Leaders Scott Warner / Chris Ritchie
- Current Status
 - As previously reported, Phase 1 of the treatability study was completed in June 2019, and a data gaps evaluation was completed in April 2020 consistent with Treatability/Pilot Study Modification No. 9, which was submitted to the Nevada Division of Environmental Protection (NDEP) on October 8, 2019 and approved by NDEP on October 14, 2019. Phase 2 (design and implementation of a field test) is planned to be completed in the vicinity of Las Vegas Wash Transect 1A (Transect 1A) pending submission and approval of a Work Plan Addendum, which will include Transect 1A field investigation results, bench-scale testing findings, and the Phase 2 field test design.
 - Preparation of the Work Plan Addendum in progress in May 2020 included evaluation of Transect 1A bench-scale testing results and design of a field test program. Results of the Transect 1A bench-scale testing, which was completed in April 2020, support field testing of coarse-grain granular ZVI in the Transect 1A area and are being used to inform the Phase 2 field test design. The field test design process has included collaboration between Ramboll and Arcadis U.S., Inc. (Arcadis) in an effort to compress the schedule for the Trust's review and Ramboll's revisions to the draft Work Plan Addendum and supporting Cost Basis document.

Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Progress Update Nevada Environmental Response Trust Site Henderson, Nevada

- Schedule and Progress Updates
 - A Work Plan Addendum and supporting Cost Basis document are anticipated to be submitted to NDEP in third quarter 2020.
 - A Stakeholder Roundtable is anticipated to be held during third quarter 2020 to present Phase 1 field and laboratory/bench-scale data and Phase 2 details of the treatability study.
- Health and Safety
 - No safety incidents occurred during May 2020.



Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Progress Update

Nevada Environmental Response Trust Site (Former Tronox LLC Site) Henderson, Nevada

Nevada Environmental Response Trust (NERT) Representative Certification I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the system(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, Inc., not individually, but solely in its rep	presentative capacity as the
Nevada Environmental Response Trust Trustee	• •
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Not Individually, but Solely as President of the Trustee

Name:

Signature:

Jay A. Steinberg, not individually, but solely in his representative capacity as

President of the Nevada Environmental Response Trust Trustee

Title:

Solely as President and not individually

Company:

Le Petomane XXVII, Inc., not individually, but solely in its representative

capacity as the Nevada Environmental Response Trust Trustee

Date:



Las Vegas Wash ZVI-Enhanced Bioremediation Treatability Study Progress Update

Nevada Environmental Response Trust Site (Former Tronox LLC Site) Henderson, Nevada

Responsible Certified Environmental Manager (CEM) for this project

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.

John M. Pekala, PG

6/30/2020

Date

Principal

Certified Environmental Manager Ramboll US Corporation CEM Certificate Number: 2347

CEM Expiration Date: September 20, 2020

