

MEMO

Date **January 27, 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: DECEMBER 2019

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 December 2019 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.

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. 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 completion of a data gap evaluation initiated in November 2019 consistent with Treatability/Pilot Study Modification No. 9, which was submitted to Nevada Division of Environmental Protection (NDEP) on October 8, 2019 and approved by NDEP on October 14, 2019.
 - Transect 1A field activities associated with the implementation of Treatability/Pilot Study Modification No. 9 in progress during December 2019 included survey of the three new monitoring wells installed in November 2019, groundwater sampling, and hydraulic testing.
 - UIC Form U240, requesting authorization to use deionized water as a tracer for aquifer testing in Transect 1A (initially submitted to NDEP Bureau of Water Pollution Control [BWPC] on November 4, 2019) was revised and resubmitted to BWPC on December 17, 2019 at BWPC's request. Approval of the U240 Chemical Use Request form was issued by BWPC on December 19, 2019 followed by issuance of a revised approval on January 2, 2020.
 - Aquifer testing commenced on December 30, 2019.

- PRIMA Environmental was contracted by Ramboll in December 2019 to conduct streamlined bench-scale testing using soil and groundwater samples collected from Transect 1A. As indicated in Treatability/Pilot Study Modification No. 9, PRIMA Environmental was selected in consideration of the expedited schedule and routine-nature of the proposed bench-scale tests.
- Schedule and Progress Updates
 - Aquifer testing in Transect 1A is anticipated to be completed in January 2020.
 - Streamlined bench-scale testing associated with the implementation of Treatability/Pilot Study Modification No. 9 was initiated in December 2019. Data from bench-scale testing activities will be summarized in forthcoming progress reports and used to inform the Phase 2 field test design.
 - A Stakeholder Roundtable is anticipated to be held during second 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 December 2019.

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 representative capacity as the Nevada Environmental Response Trust Trustee

Signature: Jay A Steinberg **Not Individually, but Solely
as President of the Trustee**

Name: 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: 9/24/2020

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
Principal

January 27, 2020

Date

Certified Environmental Manager
Ramboll US Corporation
CEM Certificate Number: 2347
CEM Expiration Date: September 20, 2020