

TECHNICAL MEMORANDUM

To:	Nevada Environmental Response Trust
Cc:	Nevada Division of Environmental Protection United States Environmental Protection Agency
From:	Dana Grady
Date:	July 24, 2020
Subject:	Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum which summarizes Tetra Tech's progress during June 2020 toward successfully implementing the Las Vegas Wash Bioremediation Pilot Study.

Task Progress Update: June 2020

Task M19 – Las Vegas Wash Pilot Study

- Task Leader Dana Grady
- Current Status
 - Access negotiations with the City of Henderson for the use of a portion of their landfill as a staging area are on-going.
 - Drilling began on February 10, 2020 and continued through June 12, 2020. Drilling activities are temporarily suspended pending approval from the City of Henderson to install the remaining 17 upgradient monitoring wells located in the City of Henderson landfill. As of June 12, 2020, the following has been completed:
 - A total of 175 injection and monitoring wells have been installed as part of the Phase 2 drilling activities. This includes approximately 17,161 linear feet of drilling and 19,165 linear feet of wells installed to-date.
 - Two sonic drill rigs were used during February and March, and two additional sonic drill rigs were brought on-site on April 7, 2020. As a result, during the months of April, May and June, up to four sonic drill rigs and two well development rigs have been employed within the study area.
 - All 175 wells installed to date have been developed.
 - On June 10-12, an as-built survey of all wells installed to date was conducted.
 - A final layout map and construction details of all injection and monitoring wells will be provided in future monthly progress reports upon completion of the drilling effort.

- As part of baseline aquifer testing, slug testing of all newly installed monitoring wells was performed from June 18 - 25, 2020. A second phase of slug testing will be conducted after installation and development of the upgradient monitoring wells in the City of Henderson landfill. Data collected from slug testing will be summarized in future reports.
- Schedule and Progress Updates
 - Tetra Tech continues to monitor the COVID-19 situation. At this time, this task remains on schedule.
 - Well installation activities are anticipated to be completed in August 2020 (pending approval of the City of Henderson access request).
 - Baseline groundwater sampling and the remaining aquifer testing will be performed following completion of well installation and development activities on City of Henderson property and approval of the Underground Injection Control (UIC) permit modification request.
- Health and Safety
 - There were no safety incidents related to Task M19 during June 2020.
 - Safety measures continue to be implemented to minimize potential exposure to COVID-19, including the use of face coverings, gloves, and hand sanitizer, as well as protocols for monitoring temperatures, minimizing the number of people on site at one time, and evaluating tasks to increase physical distance between personnel.

CERTIFICATION

Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report

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 systems(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, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Not Individually, but Solely as President of the Trustee Signature: , not individually, entative capacity as President of the Nevada Environmental Response Trust Trustee but solely in his Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Name: **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

7/24/2020 Date:

CERTIFICATION

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 prepared 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. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report, Nevada Environmental Response Trust Site, Henderson, Nevada.

J. Hansen

July 24, 2020

Date

Kyle Hansen, CEM Field Operations Manager/Geologist Tetra Tech, Inc.

Nevada CEM Certificate Number: 2167 Nevada CEM Expiration Date: September 18, 2020