

TECHNICAL MEMORANDUM

To: Nevada Environmental Response Trust

Cc: Nevada Division of Environmental Protection
United States Environmental Protection Agency

From: Arul Ayyaswami and Dan Pastor

Date: February 19, 2018

Subject: Vacuum Enhanced Recovery Treatability Study Monthly Progress Update

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum that summarizes Tetra Tech's progress made through January 2018 toward successfully implementing the Vacuum Enhanced Recovery (VER) Treatability Study as outlined in the VER Treatability Study Work Plan (Work Plan).

Task Progress Update: January 2018

Task M16 – Vacuum Enhanced Recovery Treatability Study

- Task Leader – Arul Ayyaswami
- Current Status
 - The step-drawdown test, constant-rate pumping test, VER test, and post-VER test groundwater elevation monitoring for the intermediate extraction well, VER-01I, were completed from January 5 through 21, 2018. Preliminary results from the VER testing for the intermediate extraction well, VER-01I, indicate at least a 25% increase in groundwater extraction rates compared to conventional pumping. Evaluation of the results are ongoing.
 - The step-drawdown test and constant-rate pumping test for the deep extraction well, VER-01D, were completed from January 22 through 25, 2018. The VER test for VER-01D was delayed by one week, after concurrence with the Trust, to allow sufficient time for the groundwater levels to recover following the pumping tests. Evaluation of the results of the pumping tests are ongoing.
- Schedule and Progress Updates
 - The VER test and post-VER test groundwater monitoring for the deep extraction well, VER-01D, will be performed in February 2018.
 - VER equipment will be demobilized following completion of VER-01D testing.
- Health and Safety
 - There have been no health and safety incidents related to Task M16 through January 2018.

CERTIFICATION

VER Treatability Study Monthly 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 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

Signature: Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust 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: 2/15/18

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: Vacuum Enhanced Recovery Treatability Study Progress Update, Nevada Environmental Response Trust Site, Henderson, Nevada.



2/19/2018

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

Date

Nevada CEM Certificate Number: 2167
Nevada CEM Expiration Date: September 18, 2018