

**OFFICE OF THE NEVADA ENVIRONMENTAL RESPONSE TRUST TRUSTEE**

**Le Petomane XXVII, Inc., Not Individually, But Solely as the Nevada Environmental Response Trust Trustee**  
**35 East Wacker Drive - Suite 690**  
**Chicago, Illinois 60601**  
**Tel: (702) 357-8149, x104**

June 22, 2018

Dr. Weiquan Dong, Ph.D.  
Bureau of Industrial Site Cleanup  
Nevada Division of Environmental Protection  
2030 E. Flamingo Rd, Suite 230  
Las Vegas NV 89119

RE: Data Validation Summary Report and EDD January through March and May 2015 Groundwater Remedial Investigation Sampling Response to Comments and Revised DVSR  
Nevada Environmental Response Trust  
Henderson, Nevada

Dear Dr. Dong:

The Nevada Environmental Response Trust (NERT) is pleased to present the January through March and May 2015 Groundwater Remedial Investigation Sampling Response to Comments and Revised DVSR for Nevada Division of Environmental Protection (NDEP) review. This information is being submitted as requested in your letter dated April 27, 2018. NERT's responses to the NDEP comments are provided in Attachment A. A revised DVSR and EDD are also attached.

If you have any questions or concerns regarding this matter, feel free to contact me at (702) 960-4309 or at [steve.clough@nert-trust.com](mailto:steve.clough@nert-trust.com).

Office of the Nevada Environmental Response Trust



Stephen R. Clough, P.G., CEM  
Remediation Director  
CEM Certification Number: 2399, exp. 3/24/19

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Mark Duffy, U.S. Environmental Protection Agency, Region 9  
Jay Steinberg, as President of the Nevada Environmental Response Trust Trustee and not individually  
Andrew Steinberg, as Vice President of the Nevada Environmental Response Trust Trustee and not individually  
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Office of the Nevada Environmental Response Trust Trustee  
June 22, 2018

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Brian Waggle, Hargis + Associates  
Chinny Esakkiperumal, Olin Corporation  
Chuck Elmendorf, Stauffer  
Curt Richards, Olin Corporation  
Dave Share, Olin Corporation  
Ebrahim Juma, Clean Water Team  
Ed Modiano, de maximus  
Gary Carter, Endeavour LLC  
George Crouse, Syngenta  
Harry Van Den Berg, AECOM  
Jeff Gibson, Endeavour LLC  
Joanne Otani, Joanne M. Otani LLC  
Joe Kelly, Montrose Chemical  
Joe Leedy, Clean Water Team  
Kelly McIntosh, GEI Consultants  
Kevin Lombardozzi, Valhi  
Kyle Gadley, Geosyntec  
Lee C. Farris, Landwell  
Mark Paris, Landwell  
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Michael Long, Hargis + Associates

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June 22, 2018

Nick Pogoncheff, PES Environmental, Inc.

Ranajit Sahu, BRC

Richard Pfarrer, TIMET

Rick Kellogg, BRC

Jack Luna, Tronox

John Holmstrom, Tronox

Mike Skromyda, Tronox

NDEP Comment	Response to Comment																																																																																																																								
<b>DVSR Review:</b>																																																																																																																									
<p>1. <u>Section 1, pH method:</u> The text lists the pH analytical method as 9040C; however, the EDD lists the method as WPH. Please revise either the text or the EDD to correct this discrepancy.</p>	<p>The analytical method in the EDD has been changed to 9040C for the pH results.</p>																																																																																																																								
<p>2. <u>Table III, sample counts:</u> Sample counts presented in Table III do not match the counts obtained from the EDD. Counts in the table below were taken from Table III and the sample counts from the EDD are listed parenthetically. Please check the sample counts and correct Table III as necessary and verify the sample counts reported in the introductory section for each method, the section describing the samples validated to Stage 4 and the table in Section 14.4.</p> <table border="1" data-bbox="247 670 1041 1333"> <thead> <tr> <th>Parameter</th> <th>Stage 2B</th> <th>Stage 4</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1,2,3- TCP &amp; 1,4-Dioxane</td> <td>161</td> <td>24(24)</td> <td>185</td> </tr> <tr> <td>Dissolved Metals (200.7/200.8)</td> <td>174 (170)</td> <td>24</td> <td>198 (194)</td> </tr> <tr> <td>Metals (200.7/200.8)</td> <td>23 (26)</td> <td>2 (3)</td> <td>25 (29)</td> </tr> <tr> <td>Dissolved Mercury</td> <td>76 (74)</td> <td>7</td> <td>83 (81)</td> </tr> <tr> <td>Mercury</td> <td>8 (10)</td> <td>1</td> <td>9 (11)</td> </tr> <tr> <td>Anions</td> <td>191 (192)</td> <td>27 (26)</td> <td>218</td> </tr> <tr> <td>Nitrate/Nitrite as Nitrogen</td> <td>191 (192)</td> <td>27 (25)</td> <td>218 (217)</td> </tr> <tr> <td>Chlorate</td> <td>166 (167)</td> <td>26 (25)</td> <td>192</td> </tr> <tr> <td>Perchlorate</td> <td>168 (169)</td> <td>27 (26)</td> <td>195</td> </tr> <tr> <td>Alkalinity</td> <td>83 (84)</td> <td>9 (8)</td> <td>92</td> </tr> <tr> <td>TDS</td> <td>195 (196)</td> <td>28 (27)</td> <td>223</td> </tr> <tr> <td>Ammonia as Nitrogen</td> <td>126 (127)</td> <td>23 (22)</td> <td>149</td> </tr> <tr> <td>TOC</td> <td>83 (84)</td> <td>9 (8)</td> <td>92</td> </tr> <tr> <td>Sulfide</td> <td>83 (84)</td> <td>9(8)</td> <td>92</td> </tr> </tbody> </table>	Parameter	Stage 2B	Stage 4	Total	1,2,3- TCP & 1,4-Dioxane	161	24(24)	185	Dissolved Metals (200.7/200.8)	174 (170)	24	198 (194)	Metals (200.7/200.8)	23 (26)	2 (3)	25 (29)	Dissolved Mercury	76 (74)	7	83 (81)	Mercury	8 (10)	1	9 (11)	Anions	191 (192)	27 (26)	218	Nitrate/Nitrite as Nitrogen	191 (192)	27 (25)	218 (217)	Chlorate	166 (167)	26 (25)	192	Perchlorate	168 (169)	27 (26)	195	Alkalinity	83 (84)	9 (8)	92	TDS	195 (196)	28 (27)	223	Ammonia as Nitrogen	126 (127)	23 (22)	149	TOC	83 (84)	9 (8)	92	Sulfide	83 (84)	9(8)	92	<p>The sample counts reported in the introductory section for each method, the sections describing the samples validated to Stage 4 and the table in Section 14.4 have been verified. Edits for sample counts were made to the DVSR text in introductory Sections 2.0 and 7.0, and to Compound Quantitation and Target Identification Sections 7.1.8 and 8.1.7.</p> <p>Table III, sample counts have been updated as necessary and the following sample counts are now presented in Table III and reported in the EDD:</p> <table border="1" data-bbox="1115 732 1892 1390"> <thead> <tr> <th>Parameter</th> <th>Stage 2B</th> <th>Stage 4</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1,2,3- TCP &amp; 1,4-Dioxane</td> <td>161</td> <td>24</td> <td>185</td> </tr> <tr> <td>Dissolved Metals (200.7/200.8)</td> <td>170</td> <td>24</td> <td>194</td> </tr> <tr> <td>Metals (200.7/200.8)</td> <td>26</td> <td>3</td> <td>29</td> </tr> <tr> <td>Dissolved Mercury</td> <td>73</td> <td>8</td> <td>81</td> </tr> <tr> <td>Mercury</td> <td>9</td> <td>2</td> <td>11</td> </tr> <tr> <td>Anions</td> <td>191</td> <td>27</td> <td>218</td> </tr> <tr> <td>Nitrate/Nitrite as Nitrogen</td> <td>191</td> <td>26</td> <td>217</td> </tr> <tr> <td>Chlorate</td> <td>166</td> <td>26</td> <td>192</td> </tr> <tr> <td>Perchlorate</td> <td>168</td> <td>27</td> <td>195</td> </tr> <tr> <td>Alkalinity</td> <td>83</td> <td>9</td> <td>92</td> </tr> <tr> <td>TDS</td> <td>195</td> <td>28</td> <td>223</td> </tr> <tr> <td>Ammonia as Nitrogen</td> <td>127</td> <td>22</td> <td>149</td> </tr> <tr> <td>DOC</td> <td>83</td> <td>9</td> <td>92</td> </tr> <tr> <td>Sulfide</td> <td>83</td> <td>9</td> <td>92</td> </tr> </tbody> </table>	Parameter	Stage 2B	Stage 4	Total	1,2,3- TCP & 1,4-Dioxane	161	24	185	Dissolved Metals (200.7/200.8)	170	24	194	Metals (200.7/200.8)	26	3	29	Dissolved Mercury	73	8	81	Mercury	9	2	11	Anions	191	27	218	Nitrate/Nitrite as Nitrogen	191	26	217	Chlorate	166	26	192	Perchlorate	168	27	195	Alkalinity	83	9	92	TDS	195	28	223	Ammonia as Nitrogen	127	22	149	DOC	83	9	92	Sulfide	83	9	92
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NDEP Comment	Response to Comment
	<p>In the first EDD submittal, dissolved carbon was reported with the parameter of "Carbon", parameter_id of "7440-44-0", and the analytical_suite "TOC". For consistency with the DVSR, in the revised EDD, the parameter has been changed to "Dissolved Organic Carbon" with a parameter_id of "DOC" and the analytical_suite "DOC". No edits to the DVSR text were needed.</p>
<p>3. <u>Section 2.0, VOC analyte list:</u> The samples analyzed for VOCs appear to have several different target compound lists (1, 61, or 63 analytes). Could this be noted in this section, and could the requested list be noted in Table I (e.g., * for 61 analytes, + for 1, etc.).</p>	<p>The text has been revised to indicate that two analyte lists were reported for VOCs by EPA SW-846 Method 8260B. Thirteen samples were analyzed for chloroform only and 187 samples were analyzed for a target analyte list of 61 VOCs. Table I has been updated to include separate columns for VOCs (8260B) and Chloroform (8260B).</p> <p>Samples with 63 target compounds include 1,2,3-TCP and 1,4-Dioxane analyzed by method 8260B-SIM in addition to the 61 compounds analyzed for VOCs by method 8260B. Table I includes a column marking samples with an 8260B-SIM analysis.</p>
<p>4. <u>Section 4.1.3, MS/MSD recovery criterion:</u> Should the MS/MSD criterion listed in parentheses be &lt;10% rather than &lt;0%.</p>	<p>Based on professional judgement, the data validator uses a criterion of 0% for rejecting organic analysis data due to grossly exceeded MS/MSD percent recoveries. The text has not been changed.</p>
<p>5. <u>Sections 4.2.2, 5.2.2, 6.2.2, 8.2.2, 9.2.2, 10.2.2, blank qualification strategy:</u> The blank qualification strategy is not described in these sections. Please either list the qualification strategy in this section or refer to a section that has this information.</p>	<p>The blank qualification strategies are presented in Sections 2.2.2 and 7.2.2; references to these sections have been added to Sections 4.2.2, 5.2.2, 6.2.2, 8.2.2, 9.2.2, 10.2.2, 11.2.2, and 12.2.2.</p>
<p>6. <u>Section 8, rejected results:</u> The text in this section states that the results were rejected for holding time exceedances; however, the EDD shows the two results were qualified for matrix spike recovery outliers (reason code "m").</p>	<p>The text in Section 8.0 has been changed to state the two results were rejected for MS/MSD percent recoveries.</p>
<p>7. <u>Section 8.1.3, qualified sample counts:</u> The EDD contains 273 results qualified "UJ" and "J-" and 6 results qualified "J" for MS/MSD recovery outliers; however, the text states 279 results were qualified "UJ" and "J-" and does not specify that any results were qualified "J."</p>	<p>The text in Section 8.1.3 has been revised to state:</p> <p>As a result of grossly exceeded MS/MSD %R (e.g., &lt; 30%), the cyanide results in samples M-55-20150205 and M-55-20150205-FD were qualified as rejected (R). Additionally, 279 results were qualified as estimated (J-) or non-detected estimated (UJ) due to MS/MSD %Rs below the</p>

<b>NDEP Comment</b>	<b>Response to Comment</b>
	<p>QAPP acceptance criteria. Negative bias was removed for six of 279 results since these results were also qualified as estimated (J) due to MS/MSD RPD or field duplicate RPD above the QAPP acceptance criteria.</p>
<p>8. <u>Section 8.2.1, pH holding time qualifications:</u> Please add text to this section to discuss the reason no bias was added to the pH samples qualified for holding time exceedances.</p>	<p>A sentence has been added to Section 8.2.1 that states bias cannot be determined for pH analysis holding time exceedances.</p>
<p>9. <u>Section 14.2, holding time qualifications:</u> The text in this section indicates that a VOC result was qualified for a holding time exceedance; however, this result was qualified for headspace. Please edit the text in this section to accurately reflect the qualifications applied.</p>	<p>Section 14.2 had incorrectly stated that there were holding time exceptions noted in Section 2.2.1. Section 2.2.1, Sample Preservation and Holding Times, notes that "All samples met the 14-day analysis holding time criteria for VOCs." The text in Section 14.2 has been edited to remove the reference to Section 2.2.1.</p>
<p>10. <u>Section 14.4, SVOC completeness:</u> The overall completeness did meet the <math>\geq 90\%</math> criterion; however, the SVOC completeness was less than 90%. Please discuss the effect on the SVOC data.</p>	<p>The text in Section 14.4 has been revised to state:</p> <p>The completeness for the SVOC analysis was 89.4%, slightly below the 90% criterion. The completeness goal was not achieved because results were rejected due to the presence of matrix interference (i.e., low surrogate recoveries and MS/MSD percent recoveries). Data users will need to assess any potential impact on the analysis for which the data will be used.</p> <p>To eliminate any possible impact on the usability of the SVOC data, Ramboll will resample locations that had rejected SVOC results.</p>
<p>11. <u>EDD Qualifications:</u> Please check the Nitrate-NO3 result for sample M-69-20150204. The laboratory qualification indicates this sample was analyzed beyond the holding time.</p>	<p>The holding time reason code "h" has been added to Nitrate-NO3 and Nitrate-Nitrite-N results for sample M-69-20150204. The DVSR text Section 8.2.1, Table V, Appendix G, and the EDD were revised for this addition.</p>
<b>EDD Review</b>	
<p>1. In the results table, a minimum_detectable activity is not reported for any of the radionuclide results. Please provide the minimum_detectable activity for these results.</p>	<p>The EDD has been updated to include the minimum_detectable activity for the radionuclide results.</p>

DVSR and EDD January through March and May 2015 Groundwater  
Remedial Investigation Sampling RTC and Revised DVSR  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**DVSR and EDD January through March and May 2015 Groundwater  
Remedial Investigation Sampling RTC and Revised DVSR**

**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:** , not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

*not individually, but solely as Trust*

**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:** June 20, 2018



DVSR and EDD January through March and May 2015 Groundwater  
Remedial Investigation Sampling RTC and Revised DVSR  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**DVSR and EDD January through March and May 2015 Groundwater  
Remedial Investigation Sampling RTC and Revised DVSR**

**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.



June 20, 2018

**John M. Pekala, PG**  
**Senior Manager**

Date

Certified Environmental Manager  
Ramboll  
CEM Certificate Number: 2347  
CEM Expiration Date: September 20, 2018

The following individuals provided input to this document:

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Jon Hunt, PhD  
Craig Knox

