

OFFICE OF THE NEVADA ENVIRONMENTAL RESPONSE TRUST TRUSTEE

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September 14, 2022

Dr. Weiquan Dong, P.E.
Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
375 E. Warm Springs Road, Suite 200
Las Vegas, Nevada 89119

RE: Revised Data Validation Summary Report
Annual Groundwater Monitoring and GWETS Performance Report
Nevada Environmental Response Trust
Henderson, Nevada

Dear Dr. Dong:

The Nevada Environmental Response Trust (NERT) is pleased to present the revised Data Validation Summary Report (DVSR) associated with the Annual Groundwater Monitoring and GWETS Performance Report for the July 2020 – June 2021 performance period for Nevada Division of Environmental Protection (NDEP) review. This revised DVSR addresses NDEP's comments dated August 4, 2022. As requested, an annotated response to comments is also enclosed for NDEP review.

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

Office of the Nevada Environmental Response Trust



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Remediation Director
CEM Certification Number: 2399, exp. 3/24/23

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NDEP Comment	Response to Comment
DVSR Review	
<p>1. Attachment A VOC – Field Blanks: Not all samples in the EDD have the final reason code of “bf” for the affected samples. Only the first sample in the exceptions list contains the “bf” code. Please explain the discrepancy.</p>	<p>There is no discrepancy between Attachment A and the EDD. Section III of Attachment A presents the detections reported for all types of blanks collected in the field, including trip blanks, equipment blanks, and field blanks. The exception list presented on page 10 and 11 of Attachment A is a list of the sample results that are qualified for associated detections in each type of blank collected in the field. This list includes samples qualified for field blank contamination with reason code of “bf” applied in the EDD and for trip blank contamination with reason code of “bt” applied in the EDD. Note, there were no qualified data for equipment blank contamination in Attachment A. No changes have been made to the DVSR.</p>
<p>2. Attachment A VOC – Surrogates: The table indicated “All analytes” are flagged with reason code “s”. Does this indicate all analytes in the VOC list or only analytes associated with the surrogate? Please explain the discrepancy.</p>	<p>Method 8260B does not have an associated analyte list per surrogate. Using professional judgment, the data validator qualifies all analytes when one or more surrogate recoveries do not meet the acceptance criteria. The table in Attachment A that lists “All analytes” are flagged with reason code “s” indicates that any detected result in the VOC list reported for the sample specified was qualified. No changes have been made to the DVSR.</p>
<p>3. General Comment for Clarification: The EDD lists all the applicable final reason codes that affect the sample. Are these codes listed in order of hierarchy? If so: <u>3.a Section 3.2.1 – Preservation Qualifiers as “J-” or “UJ”</u> EDD Sample PC-56-20210507 flagged as “J” with no negative bias. Since vial headspace (vh) flag is listed first in EDD should this be “J-” as stated in the DVSR?</p>	<p>Following the data qualifier definitions as discussed in the DVSR text in Section 1.0, only the final qualifier is applied by hierarchy. Reason codes are cumulative and not listed by hierarchy. However, in the case where a result is rejected, only the reason code associated with the R qualifier is used. <u>3.a Section 3.2.1 – Preservation Qualifiers as “J-” or “UJ”</u> The negative bias is not applied since the result for 1,4-dioxane in sample PC-56-20210507 was also qualified due to blank</p>

<p align="center">NDEP Comment</p>	<p align="center">Response to Comment</p>
<p><u>3.b Section 3.2.2.2 – Trip Blank</u> EDD Sample MC-53-20210429 flagged as “J+”. Since trip blank (bt) flags are listed first in the EDD should this be “J” as stated in DVSR?</p> <p>The hierarchy listed in Section 1.0 gives the “J” flag priority over “J+” and “J-” because direction cannot be determined. Please verify the final flag for the two samples listed above.</p>	<p>contamination. The final qualifier of “J” is correct per the hierarchy applied for the data qualifiers. <u>No changes have been made to the DVSR.</u></p> <p><u>3.b Section 3.2.2.2 – Trip Blank</u> The result for 1,4-dioxane in sample MC-53-20210429 was qualified with one qualifier “J+” for associated trip blank contamination where the sample result is above the practical quantitation limit (PQL), as discussed in Sections 3.2.2 and 2.2.2. The additional reason code “bb” applied to the result indicates the concentration in the trip blank was below the PQL. The final qualifier of J+ is correct. The DVSR has been revised to indicate that trip blank contamination resulted in both J and J+ flags.</p>
<p>4. <u>Section 5.1.2 – Matrix Spike – Chlorate</u> Qualifiers DVSR Total: 178 – EDD Total: 154. Please explain the discrepancy. The MS/MSD RPD (m,ld) Flag totals appear to be correct.</p>	<p>The DVSR text and EDD are both correct. The MS/MSD relative percent difference (RPD) flag is not “m,ld”, but “ld”, per the reason code definitions provided in the EDD. 154 results for chlorate were qualified for associated MS/MSD recoveries and qualified “UJ”/ “J-”/ “J+” with reason code “m”, consistent with the total count from the second and third paragraphs of Section 5.1.2 of the DVSR. Note that the numbers in these two paragraphs can be added because the criteria evaluated are mutually exclusive. Also note that some results with reason code “m” are qualified “J” because other reasons for qualification take precedence in the qualification hierarchy.</p> <p>Separately, 24 results for chlorate were qualified “J” for the associated MS/MSD RPD and have the reason code “ld” applied for the precision nonconformance, consistent with the fourth paragraph of Section 5.1.2. All 24 chlorate results with reason code “ld” also have a reason code of “m” and have a final qualifier of “J”. The number of results qualified for MS/MSD RPD</p>

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	<p>should not be added together with the number of results qualified for MS/MSD recoveries from the DVSR paragraphs as separate results because the criteria evaluated are not mutually exclusive. The total number of chlorate results qualified for MS/MSD recoveries and/or RPD is 154. No changes have been made to the DVSR.</p>
<p>5. <u>Section 5.1.2 – Matrix Spike – Nitrate as Nitrogen</u> Qualifiers DVSR Total: 64 – EDD Total: 52. Please explain the discrepancy. The MS/MSD RPD (m,ld) Flag totals appear to be correct.</p>	<p>The DVSR text and EDD are both correct. Please see response to Comment #4 above for more detail. 52 results for nitrate as nitrogen were qualified for associated MS/MSD recoveries and qualified "UJ"/ "J-"/ "J+" with reason code "m". Of the 52 results, 12 were also qualified for the associated MS/MSD RPD and have the reason "ld" applied for the precision nonconformance. The total number of nitrate as nitrogen results qualified for MS/MSD recoveries and/or RPD is 52. No changes have been made to the DVSR.</p>
<p>6. <u>Sample Receipt:</u> There are several coolers (19) received at elevated temperatures by the Lab. This appears to be happening on a continuing basis. There is no information available to determine which samples were in the cooler with elevated temperatures (unless only one cooler was submitted that day). Unless there are field notes recording cooler sample inventory, there is no way to establish sample traceability to the cooler. Example, SDG 550-162775 – 5 coolers were submitted to the lab and received with temperature readings of 1.3, 1.3, 1.6, 2.1, and 24.8 degrees C. On first appearance, it is inconceivable that one cooler was received at 24.8 supposedly to have ice present with the other four clearly able to reach acceptable temperature range. The COC is 8 pages with no indication which samples were in each cooler. All samples were collected on 4/28/2021 and delivered by hand(?)</p>	<p>Ramboll has investigated the cooler temperatures and the method for preserving samples with the sample collection team and the analytical laboratory. The one high temperature listed in the case narrative is not a temperature recorded at the laboratory. Continuing with SDG 550-162775-1 as an example, the COC shows that 24.8 is written on a different line and with different handwriting than 1.3, 1.3, 1.6, and 2.1 degrees C. The 24.8 degrees C is a temperature measurement done by "JAM" at time of drop-off at the laboratory service center in Las Vegas, or 3 PM on 4/28/2021. The four cold temperatures are measured by the laboratory at time of sample receipt the next morning.</p> <p>The case narrative stating that 5 coolers were received by the laboratory is therefore incorrect. All samples were received by the laboratory properly preserved on ice and at appropriate</p>

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<p>to the lab. The samples were received by "DCS" then relinquished to a drop box. Was anyone there to record the cooler temperatures on 4/28/21? If not, the temperatures collected on 4/29/2021 the following morning when the technician officially received the coolers into the lab, see COC, Case Narrative and Login Sample Receipt Checklist. The checklist was generated on 4/29/2021 at 8:40am. Certainly, there would have been enough time for the cooler to cool down overnight.</p> <p>Please verify the cooler temperatures were in fact recorded on 4/29/2021 at the lab and at the time of drop-off to confirm that coolers did not have time to cool. Otherwise, the method for preserving samples on ice should be reviewing. General Note: Each cooler should have its own COC for sample traceability to the cooler.</p>	<p>temperatures. The analytical laboratory is revising their procedures so that the case narratives will reflect an accurate number of coolers in the future.</p> <p>From both logistical and data validation perspectives it is most efficient for this sampling program to consolidate samples from multiple COCs into fewer coolers for shipment or courier delivery. To establish traceability, the laboratory lists individual samples received above 6 degrees C in the case narrative and/or the login sample receipt checklist. As all samples were received by the laboratory properly preserved on ice and at appropriate temperatures, establishment of sample traceability to each cooler was not needed. No changes have been made to the DVSR.</p>
EDD Review	
<p>1. <u>File "NERT 2102 EDD Rev 0.accdb"</u> The EDD is acceptable.</p>	<p>No response required.</p>