

September 28, 2012

Ms. Shannon Harbour, P.E.
Supervisor, Special Projects Branch
Bureau of Corrective Actions
Nevada Division of Environmental Protection
901 S Stewart Street, Suite 4001
Carson City, NV 89701

Re: Response to NDEP Comments on the Data Validation Summary Report and Electronic Data Deliverable for the Interim Soil Removal Action Completion Report Nevada Environmental Response Trust Site, Henderson, Nevada

Dear Ms. Harbour:

On behalf of the Nevada Environmental Response Trust (the Trust), ENVIRON International Corporation (ENVIRON) has prepared the enclosed Revised Data Validation Summary Report (DVSR) and Revised Electronic Data Deliverable (EDD) as part of the Revised Interim Soil Removal Action Completion Report for the Nevada Environmental Response Trust Site in Henderson, Nevada. The DVSR and EDD have been revised to address Nevada Division of Environmental Protection's (NDEP's) comments, which were included as Attachment A to NDEP's letter to the Trust dated August 10, 2012. Also, attached are ENVIRON's annotated responses to NDEP's comments.

Please contact the undersigned with any questions at adelorme@environcorp.com or 510/420-2565.

Sincerely,

Allan J. DeLorme, PE
Managing Principal

cc: Jay Steinberg, NERT
BMI Compliance Coordinator, NDEP, BCA, Las Vegas
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George Crouse, Syngenta
Craig Wilkinson, TIMET
Kirk Stowers, TIMET
Victoria Tyson, TIMET
Jeff Gibson, AMPAC
Matt Paque, Tronox
Fredrick R. (Rick) Stater, Tronox
John Holmstom, Tronox

Attachment A:

**Response to NDEP Comments on
*Data Validation Summary Report and Electronic Data Deliverable
for the Interim Soil Removal Action Completion Report
Nevada Environmental Response Trust Site, Henderson, Nevada
June 2010-November 2011
Dated January 2012***

Attachment A

Response to NDEP Comments on: *Data Validation Summary Report and Electronic Data Deliverable for the Interim Soil Removal Action Completion Report, Nevada Environmental Response Trust Site, Henderson, Nevada*
June 2010-November 2011
Dated January 2012

DVSR Comments

1. NDEP Comment:

Sections 6.1.6 and 6.2.2.2, these sections do not provide enough detail about the results qualified. Section 6.1.6 mentions that 130 results were qualified due to exceeding the calibration range in addition to 127 results that were qualified due to quantitation issues. There are no details as to the sample IDs or the analytes and the quantification issues need to be clarified. For example, note whether there were issues with resolving spectra. Attachment H does not provide the clarification needed. There are also samples qualified for blank contamination in Attachment H, which is for qualifications based on quantitation issues. In Section 6.2.2.2 the analytes for the samples qualified should be listed so as to be easily distinguished in Attachment I.

NERT Response:

Sections 6.1.6 and 6.2.2.2 were revised to add affected analytes and the reasons for data qualification, as requested. Section 6.2.2.2 was revised to list the affected analytes. The Attachment H results that are qualified due to blank contamination, the 'bl' qualifier, are also qualified as "Estimated Maximum Possible Concentration (EMPC)", the 'k' qualifier. EMPC is a quantitation issue, so these results remain in Attachment H.

2. NDEP Comment:

Sections 5.1.1, 5.1.2, and 6.1.3, it should be noted that many sections of the report provide specific descriptions of why data were qualified; yet for the sections 5.1.1, 5.1.2, and 6.1.3 the text becomes very sparse. For example in these sections, the text does not provide any detail about why the results qualified. This can be identified after reviewing the attachment tables but it is recommended that some additional discussion be included in the DVSR text in the future. This applies to: Section 5.1.1 indicates that 10 results were qualified and lists the analytes but does not indicate the sample IDs. A reference is made to Attachment A for details but it is not clear exactly which samples this section was referring to since samples from each method are lumped in together. Section 5.1.2 says that 39 results were qualified but does not indicate the analytes or the sample ID so it is difficult to discern what samples in Attachment 8 match this section. Similarly, Section 6.1.3 does not indicate what analytes or sample IDs were qualified.

NERT Response:

Additional details were added to Sections 5.1.1, 5.1.2, and 6.1.3 to provide specific descriptions of why data were qualified.

3. NDEP Comment:

General comment, Asbestos Data, the introduction of the report and the EDD indicate that samples were analyzed for asbestos but there is no discussion of these results in the report. It is understood that asbestos is a distinct analyte and qualifications for asbestos analysis are not

well defined but the report should discuss any quality issues or lack thereof found in the results. Section 1.0 has asbestos listed as a wet chemistry method but indicates that EPA Method 540-R97-028, which is for asbestos in soil and bulk samples, is used for analysis. The asbestos method should not be listed under wet chemistry and should be set apart in its own category. For results in the EDD, it appears that a concentration (S/gPMIO) is listed instead of the total structure counts. Asbestos-related risk assessment is calculated based on the number of structures and the results should be reported in number of total structures counted.

NERT Response:

A new section has been added to the DVSR for discussion of asbestos data validation (Section 8.0). In the EDD, result_units for asbestos has been updated to "Total Structure Count" to reflect that the result values are structure counts and not a concentration.

4. NDEP Comment:

Section 7.2.2.2 and Attachment I, No Blank Concentration for Arsenic Results, Section 7.2.2.2 indicates that arsenic results were qualified due to blank contamination but Attachment I does not specify the level of contamination. The arsenic concentration in the blanks should be listed in Attachment I samples CS-C07A-1 and CS-C08-1.

NERT Response:

Attachment I has been reformatted to correctly show the column with the equipment blank contamination limit (0.0090 mg/L) for samples CS-C07A-1 and CS-C08-1.

5. NDEP Comment:

General comment, Qualifier K and * Not Defined, the qualifier "K" is used throughout the attachments in the report, e.g., Sample ID CS-DC-1 (1,2,3,7,8,9-HxCDF) has a qualifier of JK but is not defined in the report. Additionally, a lab qualifier of "*" that is not defined in the report is used in Attachment A. Please define the K qualifier and "*".

NERT Response:

The definition for qualifier "K" has been added to the text. A "K" qualifier means, "The associated numerical value is an estimated maximum possible concentration (EMPC). Flagged by the laboratory as estimated due to not meeting the qualitative identification criteria, target compounds reported as EMPC by the laboratory should be considered estimated." The qualifier "*" is a lab qualifier noting the "LCS or LCSD exceeds the control limits". This definition has been added to Attachment A as an endnote.

6. NDEP Comment:

EDD and Attachments A and H, the reported results for two samples do not match what is in the EDD. Sample DS-14-1 (toxaphene) has a reported result of 6,700 µg/kg in Attachment A but the EDD lists a result of 28,000 µg/kg. Sample SSAO5-09-0.0_OI_BPC (benzo[k]fluoranthene) has a reported result of 45 µg/kg in Attachment H but the EDD lists a results value of 370 µg/kg. In addition to these two reporting issues, it is believed that this issue may be more systematic and it is recommended that the agreement between EDD results and reported results be checked for all samples.

NERT Response:

The Sample Quantitation Limit (SQL) and Practical Quantitation Limit (PQL) fields were swapped in the data from the lab, resulting in these fields being shown incorrectly in the EDD. As a result, non-detects were adjusted to the wrong value in the EDD. The EDD has been updated to show correct values for the SQL, PQL, and result_reported fields. Non-detects have been adjusted to the correct SQL. The non-detect results were correctly reported in Attachments A and H.

7. NDEP Comment:

Attachment E, Acceptance Limits, the acceptance limits for the first 5 pages of this attachment need to be clarified. Currently the limit is listed as "768896-30755584, 655514-". There are 3 DQI results (internal standard area) reported so it is likely there should be 3 acceptance ranges. It appears that the "Acceptance Limits" column may have formatting issues and needs to be resized to show all the ranges.

NERT Response:

Attachment E has been reformatted to properly show all acceptance ranges. Rows with three DQI results now show all three Acceptance Limits..

EDD Comments

8. NDEP Comment:

Obsolete Samples Table, there are two tables of obsolete samples in the EDD: "Copy of obsoletesamples" and "obsolete samples". However, the two lists are not the same. There are 17 sample_ids in "Copy of obsolete samples" that aren't in the "obsolete samples" table. Likewise, there are 11 sample_ids in the "obsolete samples" table that aren't in the "Copy of obsolete samples" table. Please revise as necessary for consistency.

NERT Response:

The table "Copy of obsoletesamples" has been removed. The table "obsolete samples" has been revised to accurately list the samples identifications for samples removed during the soil removal.

9. NDEP Comment:

Analytes, "Percent Moisture" is provided as an analyte_name. Percent moisture should be populated as a field in the results table for all records to which a given percent moisture value applies. Provide percent moisture for all soil samples.

NERT Response:

Percent moisture is now provided in the correct field in the EDD, and is no longer included as a specific analyte. Percent moisture has been provided for all soil samples in the EDD.

10. NDEP Comment:

CAS ID, the analyte_name "Total TEQs" has an associated cas_id of "TEQ_DF." Please clarify whether the analyte_name "Total TEQs" applies only to dioxins and furans and if so, please change the analyte name to reflect this, for example "Dioxins/Furans TEQ."

NERT Response:

The analyte_name has been updated to "Dioxins/Furans TEQ" for results with cas_id "TEQ_DF".

11. NDEP Comment:

DVSR_ID, the dvsr_id should be a single ID for the entire set of data for a given DVSR/EDD and should be unique to the DVSR/EDD. In this case there are 17 dvsr_ids associated with the EDD. Please reassign the dvsr id as a single value for the entire dataset.

NERT Response:

The dvsr_id has been updated to a single ID for this entire dataset.

12. NDEP Comment:

Sample Depths, top depth and bottom depth need to be populated for all soil samples.

NERT Response:

Sample depths have been populated for all soil samples.

13. NDEP Comment:

Matrix, define matrix "SQ."

NERT Response:

Matrix "SQ" is "Soil Quality". For consistency, all soil results have been updated to matrix "SO".

14. NDEP Comment:

QC Results, there are 1524 records where result type = "IS" or "SURR." These records should not be included in the "results" table in the EDD. If they are provided in the EDD, they should be in another table indicating QC data in the table name.

NERT Response:

The records with result types of "IS" and "SURR" have been moved to the QC results table.

15. NDEP Comment:

Detect Status, there are 23 records where detect_flag_fod = T and final validation qualifier = U. Final validation reason codes for these records are "bl" or "nd." The detect_flag_fod for these records should be "F" because data are no longer censored due to blank contamination or because they are true non detects.

NERT Response:

Detect_flag_fod has been corrected for these non-detect samples.

16. NDEP Comment:

Detect Status, there are 782 records where detect_flag = T and result reported < SQL. Nondetects should have detect flag fod = F and detect flag ra = F for non radionuclides and result_reported should be equal to the SQL. 47 of these records also need final validation qualifier and final validation reason codes fields populated (currently NULL).

NERT Response:

The SQL and PQL fields were swapped in the data from the lab, resulting in these fields being shown incorrectly in the report EDD. These results appeared to be detections less than the

SQL, but the SQL field had the PQL value. The EDD has been updated to correctly show the SQL and PQL values. These results are not less than the corrected SQL.

17. NDEP Comment:

PQL, there are 2045 records that need the PQL field populated.

NERT Response:

A lab programming error caused the PQL values for certain results to not be populated. The lab has reissued their analytical results and the EDD has been updated with the missing PQLs.

18. NDEP Comment:

EDD, SQL Greater Than PQL in EDD, Sample DS-14-1. The SQL listed for Sample DS-14-1 is 28,000 while the PQL is listed as 16. Although the units are not labeled for the SQL and PQL, they are assumed to be $\mu\text{g}/\text{kg}$. The SQL should be lower than the PQL and this should be addressed/corrected.

NERT Response:

The SQL and PQL fields were swapped in the data from the lab, resulting in these fields being shown incorrectly in the EDD. The EDD has been updated to correctly show the SQL, PQL, and result_reported values. The SQL and PQL units are reported using the same units as the analytical results.

19. NDEP Comment:

Hydro field, the "hydro" field needs to be populated for location_id EE-D25A-1.

NERT Response:

Samples at location EE-D25A-1 were misidentified with matrix "WG" (groundwater). They are soil samples, and the matrix field has been corrected to "SO". Since the "hydro" field pertains only to groundwater samples, this field remains unpopulated in the revised EDD.