



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 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 Interim Soil Removal Action Completion Report for the Nevada Environmental Response Trust Site in Clark County, Nevada. The report has 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 31, 2012. Also, attached are ENVIRON's annotated responses to NDEP's comments.

Please contact the undersigned with any questions at [adelorme@environcorp.com](mailto: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  
Brian Rakvica, McGinley and Associates, Las Vegas  
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Jeff Gibson, AMPAC  
Matt Paque, Tronox  
Fredrick R. (Rick) Stater, Tronox  
John Holmstom, Tronox

**Attachment A:**

**Response to NDEP Comments on  
*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: *Interim Soil Removal Action Completion Report, Nevada Environmental Response Trust Site, Henderson, Nevada*  
*June 2010-November 2011*  
*Dated January 2012***

**1. NDEP Comment:**

General comment, NDEP has noted that the term “dioxins” is used throughout this Deliverable. This class of chemicals should be more accurately labeled as “dioxins/furans”. Please revise the Deliverable accordingly.

**NERT Response:**

References to dioxins have been revised throughout the deliverable, as requested.

**2. NDEP Comment:**

Section 1.5, RZ-A Risk Assessment, page 4, 1st sentence, please revise to state that the Human Health Risk Assessment for Remediation Zone A “did not result in unacceptable risks...” rather than “should not result...”

**NERT Response:**

The text has been revised as requested.

**3. NDEP Comments:**

Section 2.1.1, Remediation Program Design, page 5, NDEP provides the following comments:

- a. 1st paragraph, the Trust should note and discuss that radionuclides were sampled during the Phase A/Phase B Investigations.

**NERT Response:**

A discussion of radionuclide sampling and results from the Phase A/Phase B Investigations has been added to Section 2.1.1.

- b. 2nd paragraph, please note in the text that the sampling results are available in Appendix J.

**NERT Response:**

The text has been revised as requested. Due to additional appendices being added to the revised report, the appendix containing sampling results is now Appendix L.

**4. NDEP Comment:**

Section 2.2, Excavation Control Areas, 1st bullet, page 8, please add the phrase “at the time of soil removal” after “technically infeasible or cost prohibitive”.

**NERT Response:**

The text has been revised as requested.

**5. NDEP Comment:**

Section 2.5.4, Perimeter Asbestos Monitoring, page 16, please provide referenced monitoring data.

**NERT Response:**

Perimeter asbestos monitoring data has been provided as Appendix D. The text in Section 2.5.4 has been revised to include a reference to Appendix D.

**6. NDEP Comment:**

Section 2.5.5, Particulate Air Sampling, page 16, please summarize the air monitoring results in addition to providing these results in an appendix to the revised Deliverable.

**NERT Response:**

Particulate air sampling data tables and analytical reports have been provided in Appendix E. The text in Section 2.5.5 has been revised to include a summary of particulate air sampling results and references to the data tables and analytical reports in Appendix E.

**7. NDEP Comment:**

Section 2.9.2, Waste Streams, Characterization, and Profiling, page 21, please discuss how dioxins/furans were profiled for disposal.

**NERT Response:**

A description of how dioxins/furans were evaluated during waste characterization has been added to the introductory portion of the text section. In addition, the text in this section regarding Waste Profile Number 3825 11 11172 was revised to provide details regarding dioxin/furan analytical results that were provided to the disposal facility.

**8. NDEP Comment:**

Table 3, Summary of Polygon Excavations, please add the following columns to this Table: Elevated COPCs Remaining and Discolored Soil Observed.

**NERT Response:**

New columns have been added to the table to provide details related to discolored soil observed within polygons and elevated COPCs remaining in polygons.

**9. NDEP Comments:**

Table 5a - 5d, general comments, please revise this Table to address the following:

a. Title of Table should indicate that it also includes impacted soils left in place.

**NERT Response:**

The titles of Tables 5a through 5d have been revised as requested.

b. Add column or otherwise indicate what Figure shows each listed Excavation Area.

**NERT Response:**

Figure(s) showing each listed excavation area are referenced as requested.

c. Verify that the Excavation Control Area (ECA) designations are consistent with the April 2012 Site Management Plan.

**NERT Response:**

ECA designations have been revised for consistency with the April 2012 SMP.

d. Provide a footnote reference to the April 2012 Site Management Plan for the Excavation Control Area Defined column.

**NERT Response:**

A footnote referencing the SMP has been added to the header of the Excavation Control Area Defined column in Tables 5a through 5d.

e. Separate different discolored soils, samples, or locations with either separate rows within each Excavation Area row or a carriage return between items for clarity.

**NERT Response:**

To improve clarity, carriage returns have been added between items or items were further separated into individual rows.

f. For consistency with Table 1, Soil Remedial Goals (SRGs), please replace all references to "BCLs" with "SRGs".

**NERT Response:**

References to BCLs have been replaced with SRGs in Tables 5a through 5d and throughout the deliverable, as appropriate.

g. In the Confirmation Samples and Excavation Extent Samples columns, please bold type or otherwise emphasize results above the SRGs that document impacts left in place.

**NERT Response:**

Results above SRGs are presented in bold type in these columns as requested.

h. All samples listed in the Characterization Samples, Confirmation Soil Samples, and Excavation Extent Samples columns should include the location of the sample (e.g. northern side wall, etc.).

**NERT Response:**

Information has been added to the tables as appropriate to reflect available information on specific sample locations.

i. Figures 8a - 8h should show all location reference points used in the Table (e.g. diesel tank island and pipelines, etc.).

**NERT Response:**

Location reference points used in Tables 5a through 5d have been highlighted and labeled on Figures 8a through 8h.

**10. NDEP Comments:**

Table 5a, in addition to the general Table 5a-5d comments listed above, please address the following for this Table:

a RZ-B-13, What Remained In Place column: Figure 8b shows that discolored soil remaining in place and confirmation sample SSAQ6-02 is reported with concentrations of arsenic and benzo(a)pyrene greater than their respective SRGs; however, the What

Remained in Place column indicates "None". Please revise for consistency and provide a brief explanation as to why the soil was determined to be inaccessible.

**NERT Response:**

The What Remained in Place column has been revised for consistency and a brief explanation of why the soil was determined to be inaccessible has been added.

b. RZ-B-13, Additional Excavation Performed column, please update with additional information from LVP as noted.

**NERT Response:**

No further information is available from LVP. The notation has been removed.

**11. NDEP Comments:**

Table 5b, in addition to the general Table 5a-5d comments listed above, please address the following for this Table:

a. RZ-C-1A Area, Initial Observations column, 1st row: a "thin (~6") thick brown/black layer" is referenced. It appears that the word "thick" should be inside the parentheses. NDEP has noted this error throughout this Table but will not repeat the comment for each instance. Please revise for clarity.

**NERT Response:**

The error has been corrected throughout the deliverable.

b. RZ-C-1A Area, Initial Observations column, 2nd row: please indicate where this discolored soil is generally located within the designated area.

**NERT Response:**

A description of the general location of the discolored soil has been added to the table.

c. Area East of RZ-C-05A and West of RZ-C-09B, Confirmation Samples column: please remove the text at the end of the sample results as it appears to be an internal note.

**NERT Response:**

The internal note has been removed from the table.

d. RZ-C-09A area, What Remained in Place column: Figure 8d shows discolored soil remaining in place; however, "None" is listed in the What Remained in Place column.

**NERT Response:**

Discolored soil remains in place; however, excavation extent samples indicated no results above SRGs for the analytes that were tested. The What Remained in Place column has been revised for clarity.

e. Eastern Side of RZ-C-18, Excavation Performed, What Remained in Place, and Additional Excavation columns: provide updated information from Northgate as noted.

**NERT Response:**

Information was verified with available field documentation and the notation was removed.

f. Eastern Side of RZ-C-18, Excavation Extent Samples column: provide name of sample discussed.

**NERT Response:**

The name of the sample discussed in this column has been provided.

g. RX-C-10/10A Area, Characterization Samples column, 2nd row: please clarify notation.

**NERT Response:**

The notation was an internal note and was removed from the table.

h. Southern Portion of RZ-C-17, What Remained in Place column, provide a brief explanation to why the discolored soil was inaccessible or was otherwise left in place as indicated by Figure 8d.

**NERT Response:**

A brief explanation describing why the discolored soil was inaccessible (fuel line utilities were present) has been added.

i. Southeastern Portion of RZ-C, Near Diesel Fuel Tank, Fuel Pipelines, and Gas Line, Initial Observations column, 1st and 3rd rows: clarify “(?)” designation or update with any missing information.

**NERT Response:**

Information was verified with available field documentation and the “(?)” designation was removed.

j. Southeastern Portion of RZ-C, Near Diesel Fuel Tank, Fuel Pipelines, and Gas Line, 2nd row: populate all columns missing information.

**NERT Response:**

These columns have been populated with the missing information.

k. Southeastern Portion of RZ-C, Near Diesel Fuel Tank, Fuel Pipelines, and Gas Line, last row: this table entry is very confusing and not well organized. Please revise for clarity.

**NERT Response:**

This table entry has been revised for clarity.

l. RZ-C-45 Stockpile Management Area: sample DS-C45-3 is shown in Figure 8c but not discussed in this Table. Please add results for DS-C45-3.

**NERT Response:**

DS-C45-3 is a field duplicate of DS-C45-2 and results are substantively similar. The table entry has been revised to include this information.

**12. NDEP Comments:**

Table 5c, in addition to the general Table 5a-5d comments listed above, please address the following for this Table:

- a. Discolored Soil East of Berm in Northwest Corner of RZ-D, Initial Observations column: please provide a footnote for the “\*\*\*” designation. NDEP



has noted this designation in several locations in this Table but will not repeat the comment for each specific instance.

**NERT Response:**

The “\*\*\*” designations have been replaced by a text description.

b. Discolored Soil East of Berm in Northwest Corner of RZ-D, Additional Excavation column: unclear where the area of additional excavation is located. Please provide a reference point (such as a sample location) to better locate the additional excavation area.

**NERT Response:**

The notation has been clarified and location reference information has been added.

c. Discolored Soil West of Berm in Northwest Corner of RZ-D, 4th row, Excavation Performed column: please update with additional information from Northgate as noted.

**NERT Response:**

Information was verified with available field documentation and the notation was removed.

d. RZ-D-13/14, What Remained in Place column: NERT states that the observed thin gray layer “most likely extends south to the Beta Ditch and east to RZ-D-11 B”; however, discolored soil remaining in place is not shown in these areas on Figures 8a, 8e, 9a, or 9c. Please revise these Figures to show the suspected limits of these discolored soils.

**NERT Response:**

The text in Table 5c provides an estimation of the extent of this layer of discolored soil based on observations made in other excavation areas during the soil removal project; however the discolored soil in this area could not be directly observed. Figures 8a through 9e show discolored soil areas that were directly observed during the soil removal project. Since the discolored soil in this area could not be directly observed, it is not included on the figures. The text in Table 5c has been revised to indicate that the layer “may extend...” to the south and east, rather than “most likely extends...” to the south and east. The change was made to clarify that the estimated extent of this layer has not been confirmed by direct observations.

e. RZ-D-24, What Remained in Place column: the first row in in the Excavation Control column for this excavation area states that “snow fencing will be draped over the remaining material”; however, the What Remained in Place column indicates that no material was left in place. Additionally Figure 8e does not show any discolored soil remaining in place. Please revise as necessary.

**NERT Response:**

The entire polygon was removed and no polygon soil was left in place. All discolored soil observed within the horizontal boundaries of the polygon was removed. No snow fencing was left in place. The contents of this row have been revised to reflect this information.

f. RZ-D-24, Confirmation Samples column: please list the analyses conducted on the listed samples.

**NERT Response:**

The analyses conducted on the listed samples have been added to the column.

g. RZ-D-25A Debris, What Remained in Place column: please clarify whether the “small amount of construction debris” was left in place at the eastern property line after the additional excavation had been completed.

**NERT Response:**

The content of the column has been clarified.

h. RZ-D-25A Debris, Confirmation Sample column: the results are reported twice for this excavation area.

**NERT Response:**

The extraneous information has been removed from the column.

i. RZ-D-24/25/25A, 1st row (May 2011), Confirmation Samples and Excavation Extent Samples columns: these results are reported twice for this excavation area.

**NERT Response:**

The extraneous information has been removed from the column.

j. RZ-D-24/25/25A, 2nd row (July 2011), Excavation Extent Samples column: the results are reported twice for this excavation area.

**NERT Response:**

The extraneous information has been removed from the column.

k. RZ-D-24/25/25A, Additional Excavation column: please revise to clarify that discolored layers continued past the eastern property boundary.

**NERT Response:**

The information has been revised to clarify that discolored layers extend beyond the property boundary.

**13. NDEP Comments:**

Table 5d, in addition to the general Table 5a-5d comments listed above, please address the following for this Table:

a. Subsurface Tank Structures in RZ-E-14A area, Characterization Samples column: please list the analyses conducted on the listed samples.

**NERT Response:**

The analyses conducted on the listed samples have been added.

b. South of RZ-E-14C: the designation of samples in the Characterization Samples, Confirmation Samples, and Excavation Extent Samples columns is repetitious. Please only list the results for sample DS-E14C-1 in the Confirmation Samples column for this excavation area.

**NERT Response:**

The table row has been revised to avoid repetition of sample results.

c. Beta Ditch Sidewalls near Veolia Tanks, Confirmation Soil Samples column: please list the analyses conducted on the listed sample.

**NERT Response:**

The analyses conducted on the listed sample have been added.

d. RZ-E-13/14/14B Area, Excavation Extent Samples: according to Figure 8h, analyses and results for samples EE-E14B-1, EE-E14B-2 (Dup) and EE-E14-1 should be listed for this excavation area.

**NERT Response:**

The analyses and results for these samples have been added.

e. Southern Sidewall of RZ-E-16, Characterization Samples column: please list the analyses conducted on the listed sample.

**NERT Response:**

The analyses conducted on the listed sample have been added.

**14. NDEP Comment:**

Appendix I, DVSR Reports, NDEP notes that comments were issued to NERT separately for this Appendix.

**NERT Response:**

Our response to NDEP comments on the DVSR Report are provided under separate cover. Based on updates to the laboratory Electronic Data Deliverable (EDD), changes have been made to Plates 4a through 4d and Appendix I (formerly Appendix G) as necessary. Changes primarily concern reporting limits for non-detect results.

**15. NDEP Comment:**

Table 7, this Table should be updated to be consistent with the April 2012 Site Management Plan.

**NERT Response:**

The table has been updated to be consistent with Table 1 of the April 2012 SMP.

**16. NDEP Comment:**

Figure 3, either RZ-A should be shown on this Figure or the title of the Figure should be revised to indicate that only the remediation zones that were excavated are shown.

**NERT Response:**

The title of Figure 3 has been revised as follows: "Soil Remediation Zones in Excavation Program".

**17. NDEP Comment:**

Figures 8d and 9c, according to Table 5b, the results of sample SSAOS-09 were greater than the SRGs for hexachlorobenzene, arsenic, and magnesium; however, Figures 8d and 9c do not show this impact. Please document this impact on all appropriate Figures.

**NERT Response:**

The boundary of discolored soil observed in this location has been corrected to include this sample location on all figures showing this area. The revision to the discolored soil boundary was based on information about the collection of the sample (provided by Northgate).

**18. NDEP Comment:**

Figure 8f, please annotate or otherwise emphasize on this Figure that the discolored soil remaining in place at the eastern property boundary continued to extend onto the adjacent property.

**NERT Response:**

Dashed lines with queries have been added to the figure, indicating the northern and southern boundaries of the discolored soil where it continues onto the adjacent property. In addition, a text box has been added to figures to explain that the discolored soil extends onto the adjacent property.

**19. NDEP Comment:**

Figures 9a – 9e, please update these Figures as necessary to be consistent with the April 2012 Site Management Plan.

**NERT Response:**

The ECA boundaries and locations on these figures have been updated to be consistent with the April 2012 SMP.