

## APPENDIX D

### Response to Nevada Division of Environmental Protection 12-30-09 Comments on Data Validation Summary Report Phase B Investigation Area I Soil, dated December 21, 2009

1. General comment, the Deliverable does not conform to a number of previously issued NDEP guidance documents, examples are provided below.

*Response:*

*In preparing the revisions to the DVSR requested by NDEP it was determined that several of the participating laboratories had not fully met NDEP requirements for data submittals. The project data and the EDD have been reviewed and modified accordance with the NDEP guidance documents listed below.*

- **Detection Limits and Data Reporting for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada.** NDEP. December 2008.
- **Guidance on Uniform Electronic Deliverables for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada.** NDEP. February 27, 2009.
- **Unification of Electronic Data Deliverables (EDD), NDEP-Required EDD Format. Henderson, Nevada.** NDEP. May 11, 2009.

2. **Level of Validation. Section 2.0 and General.** In Section 2.0 the data validation summary report (DVSR) indicates all of the Phase B Investigation data underwent validation with approximately 10% validated to Stage 4. Review of the database validation\_flag field indicates 6260 of values are designated "N" and 262 has no designation (are blank) in this field. The database contains a total of 74,852 records in the results table. Review of the validation\_stage field in the database indicates 4,569 records are designated to have been validated at Stage 4. The value of 4,569/74,852 indicates that approximately 6.1% of records have this designation, a value less than 10%. See item 2.c below also. The validation\_flag field also indicates not all the records were validated. There are also inconsistencies between fields in the database (see 2.d below). The DVSR should clarify why the database appears to differ from the text.

*Response:*

*10% of the data were originally selected for Stage 4 validation in accordance with NDEP requirements. Also, based on NDEP requirements, all of the data was validated at level Stage 2B. In the original NDEP EDD submittal, the validation\_stage field was not completely populated. The DVSR and EDD have been amended and are now consistent and meet the 10% Stage 4 NDEP requirement.*

3. **Database. General.** There are many issues associated with the EDD database provided with this DVSR that require attention. The database should be reviewed in detail. The following issues are noted with the database, however with the number of issues that have been identified it is recommended that all components of the database should be reviewed for accuracy and compliance with NDEP-required EDD format.

*Response:*

*The QA/QC activities for the data and the data structure have been adjusted and increased to meet the requirements of the NDEP guidance documents listed in Comment 1 above.*

- a. For the radiochemistry results: The result\_uncertainty and the minimum\_detectable\_activity fields are all blank. It is unclear how the radiochemistry values in the MDL, SQL, and PQL related to uncertainty. These records need to be corrected to meet the NDEP *Guidance on Data Reporting and Detection Limits* as well as the NDEP Unified EDD Format guidance.

*Response 3a:*

*The EDD was modified to incorporate the radiochemistry data according to the NDEP guidance. These modifications address the questions related to uncertainty.*

- b. The asbestos results have none of the sensitivity (asbestos\_analytical\_sensitivity) and uncertainty (asbestos\_sensitivity\_units) information in the database that is required as described in the EDD Format guidance. The analyst\_name information is also missing.

*Response 3b:*

*The project database and the EDD have been modified according to the requirements for reporting asbestos data outlined in the guidance documents. The analyst name is included for the asbestos data and all other appropriate data within the EDD.*

- c. The analytical\_suite field has a number of records that are blank, please added the appropriate code to these records. Also, the code "O.Pesticides" is ambiguous, please use OPPest or OCPest to differentiate the suites.

*Response 3c:*

*The analytical\_suite field has been modified to meet the requirements of the NDEP guidance referenced in the response to comment 1 above. The ambiguity has been removed by using exact NDEP specified analytical\_suite field values, as per Appendix E.*

- d. There are circa 3000 records in the database where the validation\_flag is equal to "N" yet the validation\_stage field has a designation that includes one of the following: 4, Stage 2B, Stage 4. If the data was validated to stage 4, Stage 2B, or Stage 4 then the validation\_flag value should be T (see 2.g below).

*Response 3d:*

*The validation\_flag and the validation\_level were corrected within the project database and the EDD to reflect the requirements in the **Unification of Electronic Data Deliverables (EDD), NDEP-Required EDD Format. Henderson, Nevada. NDEP. May 11, 2009.***

- e. The validation\_stage has 32,857 blank values (of 74,852 records). In general, all records should have some type of validation designation.

*Response 3e:*

*All of the validated records are now identified according to the requirements of the **Unification of Electronic Data Deliverables (EDD), NDEP-Required Format. Henderson, Nevada. NDEP. May 11, 2009.***

- f. Sensitivity DQIs. The sensitivity data quality indicators in the database do not appear to match the NDEP requirements. In many instances the sample quantitation limit (SQL) is equal to the practical quantitation limit (PQL). This is an uncommon association if the SQL and PQL are defined according to the NDEP guidance. It also appears that the MDL is used to establish the censoring level, where results are reported with a U qualifier at the MDL level. This approach is not recommended unless the MDL in the database is equivalent to the NDEP SQL definition where it represents the sample-specific (e.g. dilutions) detection limit. The sensitivity indicators in the database should be reviewed against the NDEP *Guidance on Data Reporting and Detection Limits* and adjusted where appropriate.

*Response 3f:*

*The DQIs in the database were reviewed against the NDEP guidance on Data Reporting and Detection Limits and adjusted where appropriate. The EDD was corrected to reflect those adjustments. The participating laboratories were contacted and additional clarifications and modifications of the EDDs have been solicited to ensure submittals fully meet all NDEP requirements.*

- g. The validation\_flag field should only contain one of two values: T or F. The database supplied uses Y or N, please correct these values.

*Response 3g:*

*Validation flags were changed to true/false.*

- h. There are a number of target compounds in the database with no result\_report value and no final\_validation\_qualifier. With no qualifier it is unclear why no result\_report value is provided. Values with no result\_report are of no value unless they are correctly qualified. Please review and correct these values as appropriate.

*Response 3h:*

*To correctly identify the status of target compounds where the result\_reported field is populated with NULL, the lab\_qualifier and the validation\_qualifier should be viewed concurrently to determine the reason that the field is NULL.*

- 4. **Holding Time Limits. Table 3-1.** The holding time limits in Table 3-1 are incorrect for EPA Method SW 846 8260B. A soil sample holding time limit for this method is 14 days when properly preserved.

However, it does appear that the samples have been correctly qualified in this table. This table should be reviewed for accuracy of sampling holding times and the time limit corrected. The table should also show the true "Actual Prep HT" such as 21 days, not just a greater than (>) value.

*Response:*

*Volatile Organic Compounds (VOC) analyzed by Method 8260B were collected in accordance with Method 5035A: low level concentrations using organic free reagent water and high level concentrations using reagent grade methanol. Due to laboratory error, the low level VOC soil samples in SDG R2844922 were not frozen or analyzed within the 48 hour method criteria (SW846 5035A Appendix A, section 8.3). The samples were frozen within 96 hour and analyzed within 14 days of sample collection. Table 3-1 shows the "Actual Preparation" exceedance of greater than 48 hours (> 48 hours) and all of the associated data were qualified as estimated (J/UJ). The table notes included the following clarification: Method 8260/VOCs qualified for prep time exceedance greater than 48 hours, samples were prepped in less than 96 hours.*

5. **Laboratory Qualifiers. Tables.** Several of the tables include laboratory qualifiers (LabQual) with uncommon designations (e.g. N, N\*). Provide a definition for all qualifiers used in the tables.

*Response:*

*The Area 1 Soil DVSR tables were modified and all laboratory qualifiers are now defined in the table notes.*