

## **Appendix H**

### **References**

## References

- EPA, 2002. *Guidance for Quality Assurance Project Plans*, EPA QA/G-5, Quality Assurance Division, December 2002.
- EPA, 1994. *Data Guidance for the Data Quality Objective Process*. EPA 600/R-96/055, September 1994.
- EPA, 1991. *NEIC Policies and Procedures*. EPA 330/9-78-001-R, May 1978, Revised 1991.
- EPA, 2001a. *Requirements for Quality Assurance Project Plans for Environmental Data Operations*, EPA QA/R-5, Quality Assurance Division, 2001a.
- EPA. SW-846 Online
- ASTM, 2005. Standard Practice for Environmental Site Assessments. Phase I Environmental Site Assessment Process. November 2005 ASTM International, 200 Bar Harbor Drive West, Conshohocken, PA.
- ASTM, 2006. Standard Practice for Description and Identification of Soils (Visual/Manual Method), D-2488.
- Barr Engineering, 2009. Phase II Investigation Work Plan, Sites of Concern 1-3 and 6-8, UMore Mining Area, Dakota County, Minnesota.
- EPA, 2001. EPA Requirements for Quality Assurance Project Plans, EPA/240/B-01/003, March, 2001.
- EPA, 1994b. *Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*. 9240.1-05-01, PB 94-963502, EPA 540/R-94/013. February 1994.
- EPA, 1994a. *Data Guidance for the Data Quality Objective Process*. EPA 600/R-96/055, September 1994.
- MPCA, 2005. "Sampling and Analysis Plan (SAP) Development Guidance," September 2005.
- MPCA, 1998. "Data Quality Objectives," September 16, 1998 Technical Memo.

## **Appendix I**

### **Barr Field Audit Program – Field Audit Checklist**

BARR ENGINEERING COMPANY  
FIELD AUDIT PROGRAM

FIELD AUDIT CHECKLIST

Site/Project Number: \_\_\_\_\_

Date of Audit: \_\_\_\_\_

Field Personnel

Name

Title

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Auditing Personnel

Name

Title

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 1.0 Advance Preparation for Sampling

### A. Coordination

1. Does MPCA or client need notification of sampling at this site  
Was that completed? \_\_\_\_\_
2. Were appropriate sample containers obtained from the laboratory? \_\_\_\_\_
3. Were sample containers received in good condition? \_\_\_\_\_

### B. Purging and Samping Equipment

The Barr Engineering Company Field Work Check Lists provides a comprehensive overview of the items necessary for successful field event. Sections include: project reference material, miscellaneous tools and supplies, transportation, pumps, bailers, power supplies, documentation and labeling, decontamination, health and safety, other personal gear.

Has a Field Work Check List been completed for the event? \_\_\_\_\_

If no field work check list was completed, does the field technician have all the proper equipment to perform proper groundwater sampling operations based on the project specific requirements? \_\_\_\_\_

## 2.0 Preliminary Field Work

### A. Water Level Measurements

1. Was the water level read to the nearest 0.01 foot? \_\_\_\_\_
2. Was a product interface probe necessary to measure LNAPL or DNAPL? \_\_\_\_\_
3. Was the water level recorded on the Field Log Data Sheet? \_\_\_\_\_
4. Was the water level verified with a second reading? \_\_\_\_\_
5. Was the water level marker decontaminated appropriately? \_\_\_\_\_



11. Were decontamination procedures for non-dedicated equipment employed? \_\_\_\_\_

**B. Sample Collection**

1. Was a clean bailer and line used for sample collection? \_\_\_\_\_

2. Was the bailer slowly lowered into the well (minimizing aeration)? \_\_\_\_\_

3. Was the sampling completed “in-line” using dedicated equipment? \_\_\_\_\_

4. Were vehicles or generator running during sample collection? \_\_\_\_\_

5. Were the vehicles or generators downwind from the monitoring point? \_\_\_\_\_

5. Were new sampling gloves worn at the time of collection? \_\_\_\_\_

6. Were dirty gloves replaced as necessary? \_\_\_\_\_

7. Were containers filled in the correct order?  
(i.e., volatiles, semivolatiles, metals, general chemical) \_\_\_\_\_

8. Were samples filtered as necessary (0.45 micron)? \_\_\_\_\_

9. Were in-line filtered employed for dedicated wells? \_\_\_\_\_

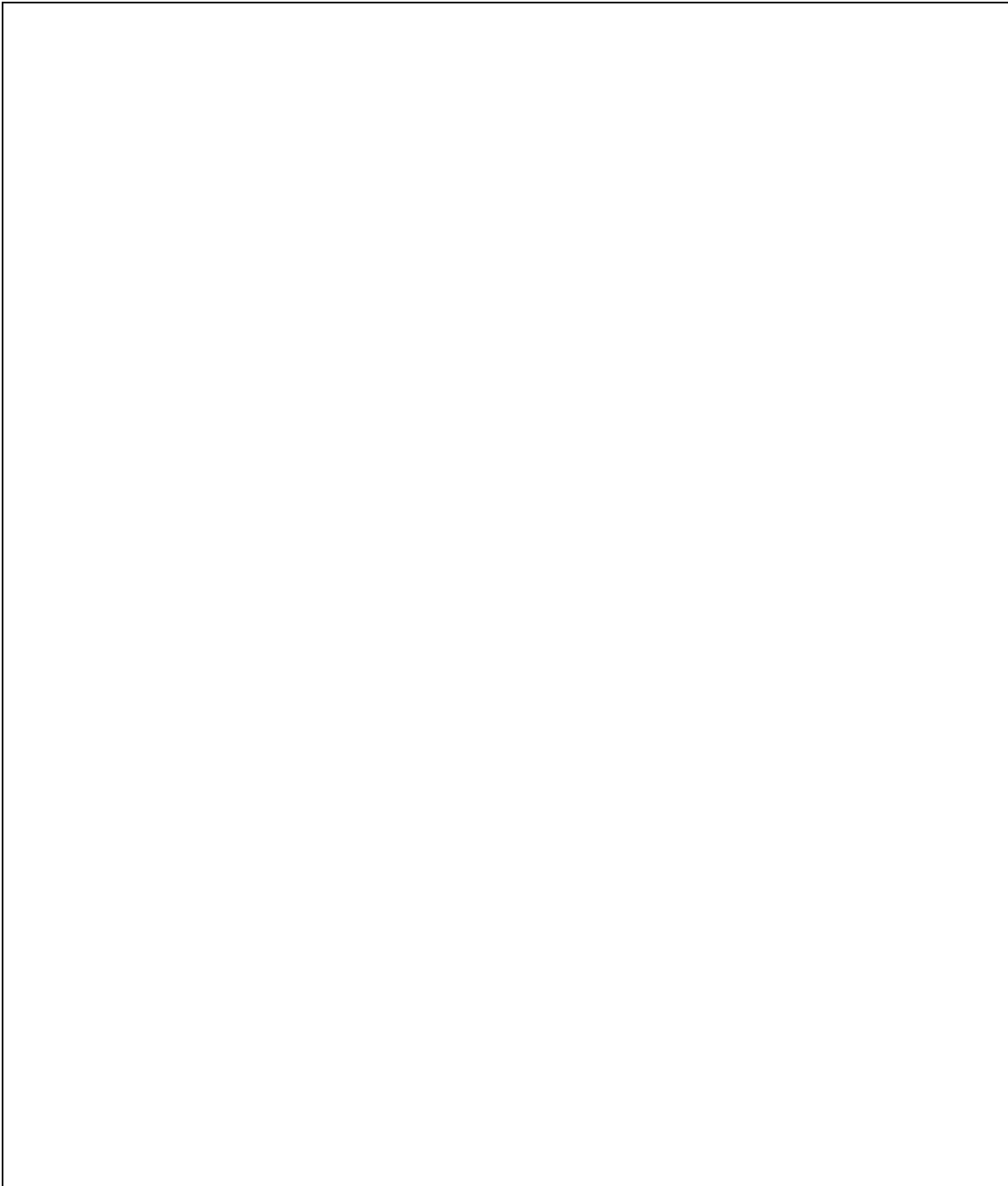
10. Was a chain-of-custody completed at the monitoring point? \_\_\_\_\_

11. Were field QA/QC samples collected as required? \_\_\_\_\_

12. Were samples placed for “storage” within an acceptable time-frame and on ice (@4oC)? \_\_\_\_\_

13. Was all non-dedicated or disposable sampling equipment decontaminated as required? \_\_\_\_\_

Comments:

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