Figure 11. MEA. Top: View from county road along the western section line of Section 13, NE 1/4, T. 29 N, R. 51 W, looking northeast. The proposed satellite facility building will be located in the upper center of the image. Bottom: View to the east, taken about 1.5 miles north of the top photograph. (Photos: PRN, October 23, 2012)

The Niobrara River is located about a mile to the southwest of MEA (**Figure 12**).

Figure 12. The Niobrara River; photograph taken approximately 1 mile to the southwest of the MEA. (Photo: DB, October 23, 2012)

2.5 Central Processing Facility (License Renewal Environmental Assessment in Progress)

Since mining activities in the CBR current license area have been ongoing since the NRC issued the original license (ca. 1990) and are nearly complete in terms of additional wells to be drilled, the team conducted a limited site visit the morning of October 24, 2012, followed by a meeting in the project offices. The field visit focused on some archaeological sites that had been previously recorded and evaluated as potentially eligible for listing on the NRHP, particularly on the CBR protective management practices for such sites during operations.

2.5.1 Water Resources

The tour of the CPF began with the lined surface lagoons where water may be temporarily discharged before being injected into one of the two deep disposal wells (**Figure 13**). **Figures 14** and **15** show the well house and deep well, respectively. Many of the sentry wells are equipped with dedicated pumps and compressors (**Figure 16**). Once the oxidant is mixed at the processing facility, it is pumped into holding tanks within the well field (**Figure 17**). All of the piping leading to the injection and pumping wells is routed to well houses, where the flow rates can be manually checked and adjusted (**Figure 18**). **Figure** 19 shows an injection well head. Surface water and sediment sampling is performed at several location along English and Squaw Creeks (**Figure 20**). Flocks of pheasants and turkeys were observed within the mined area (**Figures 21** and **22**).

Figure 13. Lined lagoon on the CPF. (Photo: DB, October 24, 2012)

Figure 14. The well house protecting deep injection well #1. (Photo: DB, October 24, 2012)

Figure 15. The well head of deep injection well #1. (Photo: DB, October 24, 2012)

Figure 16. Sentry well equipped with dedicated generator for sampling. (Photo: DB, October 24, 2012)

Figure 17. Storage tank holding oxidant on the CPF. (Photo: DB, October 24, 2012)

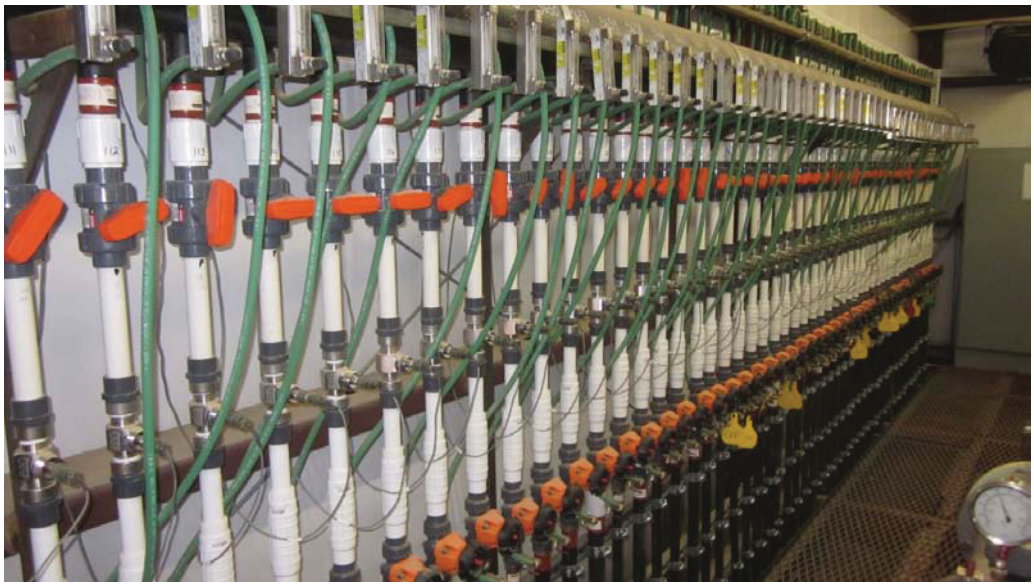

Figure 18. Flow values and ball gauges for injection and extraction wells. (Photo: DB, October 24, 2012)

Figure 19. The well head of an injection well. (Photo: DB, October 24, 2012)

Figure 20. Surface water and sediment sampling location on English Creek. (Photo: DB, October 24, 2012)

Figure 21. Pheasant flying at the CPF. (Photo: DB, October 24, 2012)

Figure 22. Turkeys grazing on the CPF. (Photo: DB, October 24, 2012)

Following mining operations, restoration of the affected aquifer results in the production of wastewater. Ground water treatment activities involve the use of process equipment to lower the ion concentration of the ground water in the affected mining area. A reverse osmosis (RO) unit is used to reduce the total dissolved solids of the ground water. The RO unit produces clean water (permeate) and brine. The permeate is either injected into the formation or disposed of in the waste disposal system. The brine is sent to the wastewater disposal system. The RO unit is situated away from the main processing building and contains ion exchange (IX) and RO process equipment (**Figures 23** and **24**).

Figure 23. IX column located in an auxiliary building on the CPF. (Photo: DB, October 24, 2012)