

The Remediation of Abandoned Iron Ore Mine Subsidence in Rockaway Township, New Jersey

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Abstract

This report represents the tenth Semi-Annual Technical Progress Report issued in connection with the subsidence remediation projects undertaken by Rockaway Township in Morris County, New Jersey. This report provides a summary of the major project work accomplished during this reporting period and contemplated for the subsequent reporting period. This report is issued as part of the project reporting provisions set forth in the Cooperators Agreement between the United States Government - Department of Energy, and Rockaway Township.

The purpose of the Cooperators Agreement is for the Department of Energy to provide technical and financial assistance in a coordinated effort with Rockaway Township to develop and implement a multi-phased plan to remediate ground stability problems associated with abandoned mining activity. Primarily during the 1800's, extensive iron ore mining and prospecting was undertaken in Rockaway Township, part of the Dover District Mining region in Morris County. The abandoned mining activity has resulted in public safety hazards associated with ground collapse and surface subsidence features evolving in both developed and undeveloped areas within Rockaway Township.

At the Green Pond Mine site at the Township Compost Storage Facility, engineering continued during this reporting period toward development of the Construction Plans and Technical Specifications for the remediation work.

At the Mt. Hope Road subsidence, surface monitoring was conducted periodically at the work area and adjacent areas after the January 2000 construction effort.

Summary

Engineering continued toward preparation of the Remediation Engineering Design and Technical Specifications for the Green Pond Mines Project.

At the White Meadow Mine, no work was conducted this reporting period.

Monitoring of the Mt. Hope Road subsidence project occurred during this reporting period. No observations of adverse subsidence were noted at the area of concern.

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Results and Discussion

The following information provides the results of the major issues, work and investigations considered during the reporting period of this Technical Progress Report.

General Project Communications and Fundamentals

During this semi annual reporting period various communications and coordination occurred in connection with the project work and Cooperators Agreement. Work occurred toward preparation of the semi-annual Technical Progress Report for the previous period for the United States Department of Energy on behalf of Rockaway Township in accordance with the Cooperators Agreement.

White Meadow Mine – Project Status

The remedial construction work was completed by others outside of the Cooperators Agreement during 2002.

Green Pond Mines – Project Status

Analysis of the historical data, research, and geophysical results continued toward completion of the engineering remedial design and preparation of the project specifications.

Mt. Hope Road – Project Status

Monitoring of surface conditions of the area of work has not indicated any adverse surface conditions or subsequent subsidence since the January 2000 construction.

General Remediation – Project Status

Numerous hazards exist within Rockaway Township from abandoned mining activity. The Township will address other abandoned mining activity hazards on a priority basis under the Cooperators Agreement after completion of the Green Pond Mine project.

Subsequent Reporting Period Activity Plan

Construction Plans and Technical Specifications for the Green Pond Mines Project will be completed during the subsequent semi-annual reporting period. The project will be competitively bid during this reporting period and the remedial construction subsequently undertaken.

Depending on the final cost of the Green Pond Mines project, the balance of the financial assistance from the United States Department of Energy under this agreement would be applied toward addressing other mining hazards in Rockaway Township.

Conclusions

No field survey research, completed design, or construction was undertaken during this reporting period. Consequently, no additional conclusions are set forth during this reporting period.

Appendix

This Report does NOT contain an Appendix
