

INSTALLATION RESTORATION PROGRAM  
NO FURTHER REMEDIAL ACTION PLANNED  
DECISION DOCUMENT  
FOR SITE 8  
FINAL



MICHIGAN AIR NATIONAL GUARD  
ALPENA COMBAT READINESS TRAINING CENTER  
ALPENA, MICHIGAN

April 1998

Air National Guard  
Andrews AFB, Maryland

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## ACRONYM LIST

ANGRC	Air National Guard Readiness Center
ARARs	Applicable or Relevant and Appropriate Requirements
BRA	Baseline Risk Assessment
COCs	chemicals of concern
CRTC	Combat Readiness Training Center
DOD	Department of Defense
FS	Feasibility Study
GSI	Groundwater/Surface Water Interface
HQ	hazard quotient
IRP	Installation Restoration Program
MDEQ	Michigan Department of Environmental Quality
MERA	Michigan Environmental Response Act
MIANG	Michigan Air National Guard
RAOs	remedial action objectives
RI	remedial investigation
SI	site investigation

## 1.0 INTRODUCTION

This final decision document presents the rationale for the no action response proposed for the Michigan Air National Guard's (MIANG's) Alpena Combat Readiness Training Center (CRTC) Site 8, the former site of Hanger 9. No constituents of concern were detected in samples collected at the site in September 1997. The draft final decision document was reviewed by the Michigan Department of Environmental Quality (MDEQ). This final decision document was prepared in accordance with the MDEQ August 19, 1997 and March 24, 1998 letters (Appendix A). This document is part of the U.S. Department of Defense's (DOD's) Installation Restoration Program (IRP).

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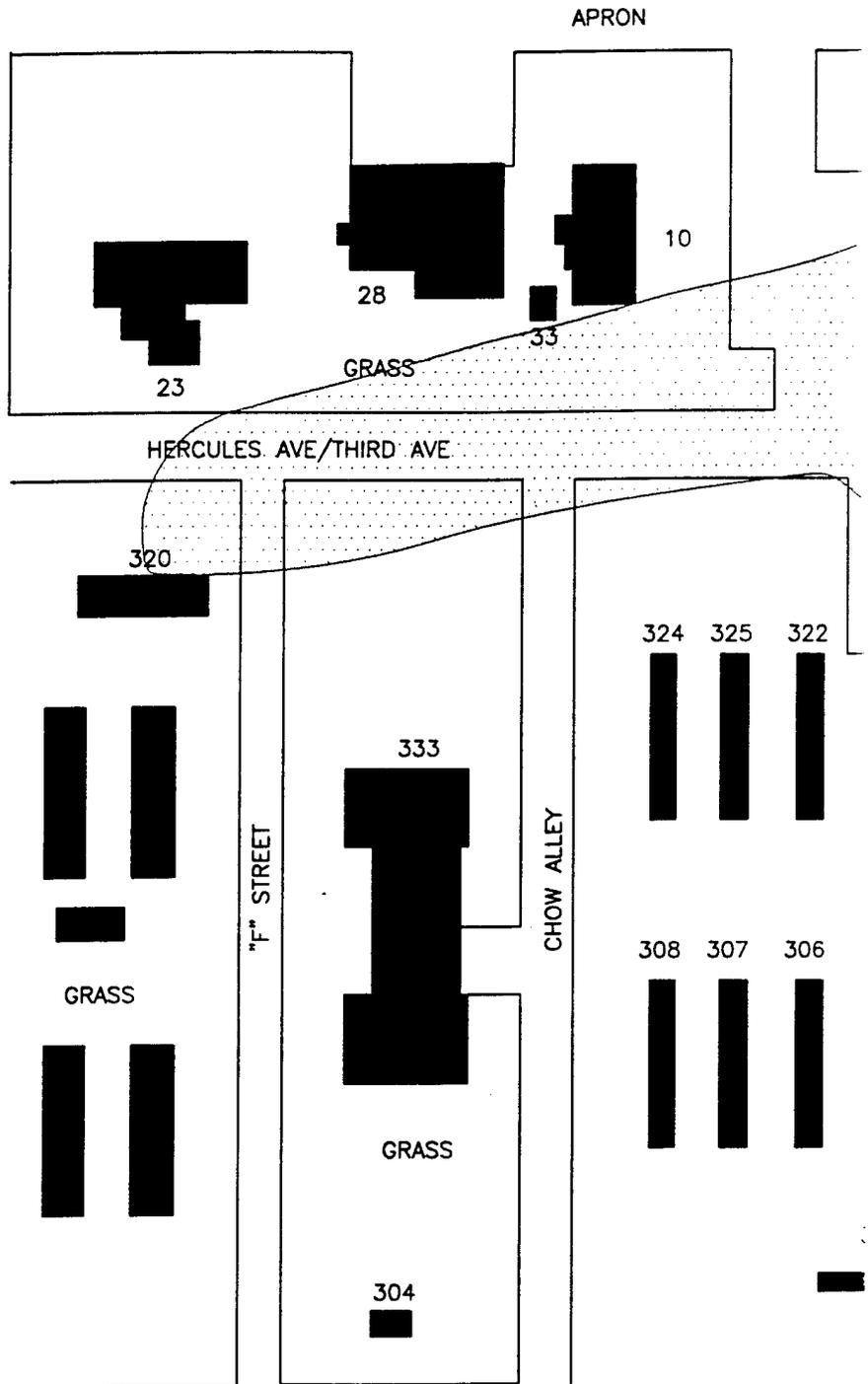
## 2.0 SITE DESCRIPTION AND HISTORY

The MIANG Alpena CRTC is located at the Alpena County Regional Airport, approximately 5 miles west of the city of Alpena (Figure 1). The Alpena County Airport occupies approximately 3,000 acres of land. MIANG leases and has exclusive rights to approximately 600 acres of that property for the Alpena CRTC.

The Alpena CRTC has a long history of military and training use. Since 1952, the Alpena CRTC has primarily been used as a training facility. Training takes place year-round with the greatest influx of personnel occurring during the months of April through September. The Alpena CRTC has had no assigned aircraft since the mid-1950s, except for a period between 1964 and 1972, when a detachment of aircraft and personnel were on 24-hour intercept alert.

Site 8 is the former location of Hangar 9, which was built in 1942 and dismantled in 1978. The entire concrete floor of the former hangar has been incorporated into the parking area east of the control tower. The location of the former hangar building is shown in Figure 2.





APRON

GRASS

CONCRETE FLOOR  
OF FORMER  
HANGER 9

10

28

33

GRASS

THIRD AVE

32

320

324

325

322

305

333

CHOW ALLEY

GRASS

308

307

306

315

C STREET

GRASS

37

GRASS

304

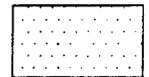
303

302

LEGEND

333

BUILD



STUD

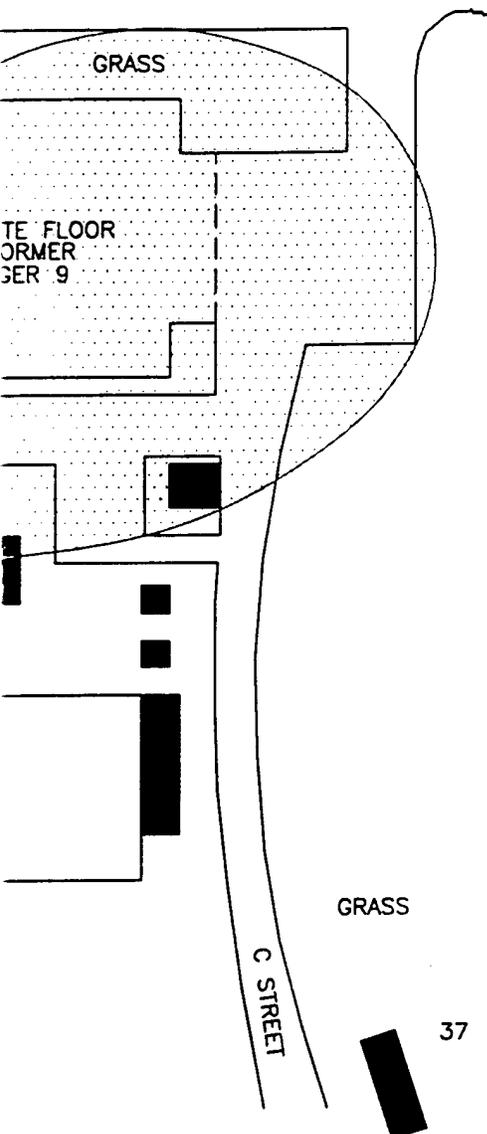


MICHIG.

SITE 8 -  
SIT

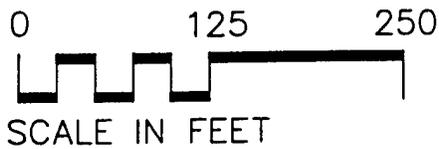


2



LEGEND

-  333 BUILDING WITH BUILDING NUMBER
-  STUDY AREA



MICHIGAN AIR NATIONAL GUARD  
ALPENA CRTC  
ALPENA, MICHIGAN

SITE 8 - FORMER SITE HANGER 9  
SITE FEATURES MAP

FIGURE 2

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 **MONTGOMERY WATSON**

### 3.0 SUMMARY OF SITE ANALYSIS

Our investigative work at Site 8 included both the site investigation (SI) from 1987 to 1991, and the remedial investigation (RI) from 1992 to 1993. We collected and analyzed soil during installation of soil borings, and installed and sampled monitoring wells during the SI for Site 8. As part of the RI sampling activities, we collected soil gas and groundwater screening data in 1993. Soil borings, monitoring well installation, and soil and groundwater sampling and analysis comprised the remainder of the RI activities.

Figure 2-6 in the Final Feasibility Study (FS) (Montgomery Watson, 1996) shows the sampling locations for Site 8. The SI Report and the RI Report (The Earth Technology Corporation, 1995) include the details on the sampling, including the depth of each sample, contaminant concentrations, the depth of the contamination, and the methods used in collecting and analyzing the samples. The following sections are a discussion of the chemicals of concern (COCs) identified in the FS for groundwater and soil at Site 8.

#### 3.1 Groundwater

Constituents in groundwater samples from Site 8 were compared with Applicable or Relevant and Appropriate Requirements (ARARs) to identify COCs. ARARs considered in the FS include:

- Generic Industrial Cleanup Criteria for health based drinking water value (Industrial Drinking Water Values) as outlined in the Michigan Environmental Response Act (MERA), Operational Memorandum #14, Revision 2, June 1995.
- Generic Industrial Groundwater/Surface Water Interface (GSI) as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.

According to the RI Report, no contaminants were present at Site 8 during groundwater sampling events in 1987, 1988, 1991, and 1993 at levels exceeding Industrial Drinking Water Values.

Based on the site analysis presented in the FS, there are no contaminants that require remediation in the groundwater at Site 8.

### 3.2 Soil

Constituents in soil samples from Site 8 were compared with ARARs to identify COCs. ARARs considered in the FS include:

- Generic Industrial Cleanup Criteria for soil direct contact (Industrial Direct Contact Values) as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.
- Generic Industrial Cleanup Criteria for soil considered protective of groundwater as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.

Based on information presented in the RI Report, the soil samples collected at Site 8 do not contain constituents at levels that exceeded the Industrial Direct Contact Values.

A sample from location (HN8SB6) contained antimony and lead at concentrations in excess of Default Background Values. These contaminants were not present in groundwater samples collected from downgradient wells HN8MW3 and HN8MW4. Therefore, the soil at Site 8 is considered protective of groundwater since the contaminants identified for the soil are not present in the groundwater in excess of regulatory limits.

Based on the site analysis presented in the FS, there are no contaminants that require remediation in the soil at this site.

#### 4.0 RISK ASSESSMENT

A baseline risk assessment (BRA) was performed during the RI to assess the risks posed to human health and the environment by the contamination at the Alpena CRTC sites. This section summarizes the BRA results for Site 8. The complete BRA analysis for Site 8 is presented in the RI Report.

The RI Report BRA indicates that the current complete exposure pathways include soil pathways (ingestion and dermal contact with soils). The on-site adult is the only current receptor. Future exposure pathways listed in the RI Report BRA include the above-listed soil pathways for the recreational child and future on-site/recreational adult. Additional future exposure pathways for the on-site/recreational adult and child include shallow aquifer groundwater pathways (drinking water ingestion, dermal contact, inhalation of volatile organic compounds [VOCs] during showering). If any future construction activities take place, then additional exposure soil pathways (ingestion, dermal contact, and inhalation of fugitive dust) become complete for the excavation worker. Carcinogenic and non-carcinogenic exposures were evaluated for all scenarios in the RI Report BRA. No future carcinogenic risk was calculated in excess of the MDEQ established cancer guidance level of  $1 \times 10^{-5}$  was calculated for any of the above listed pathways. No current or future hazard quotients (HQs) were determined to be above the reference level of 1.

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## 5.0 SELECTION OF REMEDIAL ALTERNATIVE

The FS considers several alternatives for remediation of Site 8. The remedial alternatives analyzed for Site 8 include:

- No Action: The No Action Alternative serves as a baseline for comparison with other remedial alternatives. Under this alternative, no remedial actions would be completed at Site 8 to contain or reduce the contaminants in the soil and groundwater.
- Limited Action for Groundwater: Under the Limited Action Alternative the contaminants in the groundwater would not be contained or treated, but allowed to naturally attenuate. Monitoring of groundwater would be completed to support the information provided in the RI Report. Institutional controls would be implemented to prevent groundwater use while monitoring was taking place.

The No Action Alternative is considered the alternative of choice for Site 8. This alternative will be protective of human health and the environment. The alternative will meet remedial action objectives (RAOs) and ARARs established for groundwater and soil. Based on the information presented in the RI Report, Site 8 currently poses no human health or environmental concerns. The concentrations of contaminants in the soil samples do not exceed Industrial Direct Contact Values, and the soil has been shown to be protective of groundwater. In addition, the four rounds of groundwater sampling showed no contaminants in the groundwater at levels exceeding Industrial Drinking Water Values.

The Limited Action Alternative would provide additional groundwater sampling. This alternative, like the No Action Alternative, would be protective of human health and the environment. The Limited Action Alternative would meet all RAOs and ARARs for groundwater and soil. Based on the information presented in the RI Report, Site 8 currently poses no human health or environmental concerns. There are sufficient sampling data to support Site 8, and additional sampling is not necessary.

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## 6.0 CONCLUSION

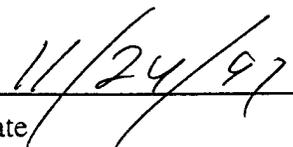
Based on the results of the field investigation, there is minimal contamination in the soil and groundwater at Site 8. This site does not pose a threat to human health or the environment. The site currently meets all RAOs and ARARs established in the FS. Therefore, no remediation activities are needed at the site. The recommended alternative for this site is the No Action Alternative.

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## 7.0 DECISION

On the basis of the findings at the Alpena CRTC Site 8, there is no evidence of significant environmental contamination at the site. Site 8 currently poses no risk to human health or the environment. This site will be removed from further consideration in the IRP process and no further investigative or remedial activities will be conducted with regard to the site.

  
\_\_\_\_\_  
Chief, Environmental Division

  
\_\_\_\_\_  
Date

-----  
Michigan Department of Environmental Quality

Concur

Non-Concur (Please provide reason)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

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## 8.0 REFERENCES

- Hazardous Materials Technical Center, 1985. *Installation Restoration Program Records Research: Phelps Collins Air National Guard Base, Alpena, Michigan.*
- The Earth Technology Corporation, 1993. *Site Investigation Report, Combat Readiness Training Center, Michigan Air National Guard, Alpena County Regional Airport, Alpena, Michigan.*
- The Earth Technology Corporation, 1995. *Final Remedial Investigation Report, Alpena Combat Readiness Training Center, Alpena County Regional Airport, Michigan Air National Guard, Alpena, Michigan.*
- Montgomery Watson, 1996. *Final Feasibility Study, Alpena Combat Readiness Training Center Alpena, Alpena Michigan.*

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**APPENDIX A**

**LETTERS FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL  
QUALITY**

STATE OF MICHIGAN



JOHN ENGLER, Governor  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

REPLY TO:

ENVIRONMENTAL RESPONSE DIVISION  
KNAPPS CENTRE --  
PO BOX 30425  
LANSING MI 48909-7925

August 19, 1997

Mr. Paul Wheeler -  
ANGRC/CEVR  
3500 Fetchet Avenue  
Andrews AFB, Maryland 20762-5157

SUBJECT: Phelps Collins ANG, Alpena County

Dear Mr. Wheeler:

Staff from the Michigan Department of Environmental Quality (MDEQ) have reviewed the Installation Restoration Program, Draft Final Decision Documents, dated July 1996, for sites 1, 3, 5, 6, 7, 8, 9, and the Final Decision Documents for sites 11, 14, 15, and 16, which were dated May 1996. Staff have provided the following comments concerning the documents:

A "Limited Action Alternative" is approved for sites 1, 5, 6, 7, and 9 to monitor for exceedances of Groundwater Surfacewater Interface (GSI) criteria. The proposed alternative is to include the installation of wells (per the June 10, 1997 meeting minutes), quarterly sampling and institutional controls to prevent public exposure. Should exceedances of the GSI standard occur, a more aggressive remedial action may be requested for the site.

While the proposed monitoring addresses downgradient GSI concerns regarding the sites, additional sampling to verify that source area soils and groundwater are remediated are still needed prior to closure. It will be necessary to demonstrate that groundwater, in the source area as well as downgradient, does not exceed appropriate standards for a minimum period of one year, prior to closure. Institutional controls on the property will need to take into account all relevant exposure pathways as required under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, 20118 (6(d(ii))).

The Decision Documents for sites 3 and 8 had proposed no action alternatives for the sites. It was agreed in our June 10, 1997 meeting that a limited amount of sampling will take place to verify previous sampling at the sites. Should the agreed upon sampling indicate that contamination is not present at the proposed locations, a no action alternative will be approved for the sites.

Staff are in concurrence with the "No further Action" decisions reached in the "Final Installation Restoration Program Decision Documents" prepared for sites 11, 14, 15, and 16. Based on the above referenced reports, the levels of contaminants which will remain in soils have been characterized and do not pose an unacceptable risk on the basis of standardized exposure assumptions and acceptable risk levels (Residential Cleanup Criteria), as described in the provisions of R 299.5709 to R299.5715 of the administrative rules of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The sites can be considered closed with regard to these contaminants.

August 19, 1997

In regards to the forthcoming sampling at the Phelps Collins ANG base, it is recommended that the Data Quality Objectives and the level of QA/QC used correspond to Level III (three) Data Quality. It is also recommended that the constituents of concern be expanded to include the reporting of all Method 8260 aromatics, plus dimethylbenzenes and solvents. In those areas where aviation gasoline may have been used, or lost, ethylene dibromide should be included in the analysis. PCB's should be included in at least one sampling event in the dump area. The QAPP should include specific information with regard to the analytical laboratory and procedures to be used.

Please notify MDEQ district staff when the proposed sampling is to take place. If you have any questions or need further information please feel free to contact Mr. Andy Stempky at 517-731-4920, or or you may contact me.

Sincerely,



Dan Schultz, Chief  
Field Operations Section  
Environmental Response Division  
517-241-7706

cc: Kimble, Alpena ANG  
Delaney, MDEQ  
Alford/Stempky/file, MDEQ  
c. file (aps)

STATE OF MICHIGAN



JOHN ENGLER, Governor  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**

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INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)  
RUSSELL J. HARDING, Director

March 13, 1998

REPLY TO:

ENVIRONMENTAL RESPONSE DIVISION  
KNAPPS CENTRE  
PO BOX 30426  
LANSING MI 48909-7926

Mr. Paul Wheeler  
ANGRC/CEVR  
3500 Fetchet Avenue  
Andrews AFB, Maryland 20762-5157

Dear Mr. Wheeler:

SUBJECT: Alpena Combat Readiness Training Center, Alpena Michigan

Staff of the Michigan Department of Environmental Quality (MDEQ) have reviewed the "Installation Restoration Program, No Further Remedial Action Planned, Decision Documents" for Sites 3 and 8 dated November, 1997 and received December 19, 1997. We consider these documents as interim action documents and not subject to the requirements of Section 20114(8) for final remedial action plan (RAP) review.

Based on our review of these documents, we concur with the "No Further Action Planned" decisions of the "Final Installation Restoration Program Decision Documents" prepared for sites 3 and 8. However, we cannot concur that all necessary requirements of Part 201 have been met since site closure to generic industrial criteria requires submission and approval of a final RAP as well as two important elements described as follows:

- a. Documentation that the current zoning is consistent with the categorical criteria being proposed, or that the governing zoning authority intends to change the zoning designation so that the proposed criteria are consistent with the new zoning designation, or the current property use is a legal non-conforming use.
- b. Consistent with Section 20120b(2), a notice of approved environmental remediation (NAER) must be recorded with the register of deeds for the county in which the facility is located within 21 days after approval of the remedial action by the department. Accordingly, a draft NAER must be submitted to the department with the final RAP. If the restrictions only apply to a subset of the parcel or if different restrictions apply at different areas of the parcel, the draft NAER must include a survey and property description that define the areas addressed by the RAP.

We look forward to the receipt of these documents in the near future to bring this facility to final closure. If you have any questions or need further information, please feel free to contact Mr. Andy Stempky at 517-731-4920, or you may contact me.

Sincerely,

Mr. Daniel Schultz, Chief  
Field Operations Section  
Environmental Response Division  
517-241-7706

cc: Mr. Fred Kimble, Alpena ANG  
Mr. Robert Wagner  
File

Mr. Robert Delaney, MDEQ  
Mr. Andy Stempky