Ohio EPA

State of Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402-9398
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PLEASE

DELIVER THE FOLLOWING PAGES TO:

Reid 3 May 11

NAME: Linda Ingram LSI
COMPANY/DIVISION: Army Corp of Engineers
FAX NUMBER: (615) 736-7676

FROM: Ron Nabors
DIVISION: Div. of Emergency and Remedial Response
TOTAL NUMBER OF PAGES INCLUDING COVER LETTER: 3

COMMENTS:

IF THERE ARE ANY PROBLEMS WITH THIS FAX, CALL OHIO EPA NWDO AT (419) 352-8461.

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Bob Taft
Governor

April 29, 1999

RE: U.S. NASA PLUM BROOK
ERIE COUNTY
OHIO I.D#: 322-0552
SITE-WIDE GROUNDWATER
INVESTIGATION

Department of the Army
Nashville District, Corps of Engineers
Ms. Linda S. Ingram
P.O. Box 1070
Nashville, TN 37202-1070

Dear Ms. Ingram;

The Ohio Environmental Protection Agency (EPA), Division of Emergency and Remedial Response (DERR), has reviewed the draft "Summary Report Site-Wide Groundwater Monitoring (1997-1998)" for the former Plum Brook Ordnance Works, Sandusky, Ohio. This document was submitted to the Ohio EPA by the International Technology Corporation (ITC) on behalf of the Corps of Engineers, February 22, 1999 for review and comments. Ohio EPA, DERR is providing the following comments.

1. ITC has calculated horizontal hydraulic gradients for the unconsolidated overburden zone (Section 6.1.1) and the consolidated bedrock zone (Section 6.1.2) using potentiometric surface maps generated from each quarterly water level measurement event (Appendix D). ITC calculated the gradient values using multiple transects across each potentiometric surface map for each zone and averaging the values to account for seasonal variation. The Ohio EPA recommends that in the future, instead of using potentiometric contour lines as the endpoints for the different transects, ITC should use actual monitoring wells and their corresponding water level elevations as the endpoints to calculate the horizontal hydraulic gradient. The reason for this is the contour line is an approximation or interpolation of the water level elevation across the saturated zone of interest and is not an actual field measurement. By using actual field measurements of a pair of monitoring well ground water level elevations as endpoints, a more accurate hydraulic gradient can be calculated.

2. The Ohio EPA requests that ITC provide a brief discussion in a forthcoming submittal to explain how background data obtained from background wells screened within the

unconsolidated overburden and consolidated bedrock zones will be utilized to evaluate downgradient ground water quality at the NASA Plum Brook Station. The 1997-1998 Site-Wide Ground Water Monitoring Summary Report compares ground water analytical results from each area of concern to Risk Based Concentrations but not to any background (inorganic) concentration.

Please incorporate these comments and resubmit this document. Should you have any questions or comments regarding these comments feel free to contact me at (419) 373-3147.

Sincerely,

Ron Nabors

Ron Nabors
Site Coordinator
Division of Emergency and Remedial Response
Northwest District Office

cc: DERR file