



Department of Energy

**Ohio Field Office
Fernald Area Office**

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DEC 21 1998

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0285-99

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSES TO THE U.S. ENVIRONMENTAL PROTECTION AREA
COMMENTS ON THE AREA 1, PHASE II TRAP RANGE STABILIZATION PACKAGE**

The purpose of this letter is to transmit the responses to U.S. Environmental Protection Agency's (U.S. EPA) comments on the Area 1, Phase II Trap Range Stabilization Package. Also enclosed is Appendix 1 - Sample Identification Numbers, Locations, Depths and Analytical Results to the, "Characterization Summary of the Area 1, Phase II Trap Range," October 1998. Appendix 1 was inadvertently left out of the Characterization Summary in the previous transmittal.

If you have any questions or concerns regarding this approach, please contact Robert Janke at (513) 648-3124.

Sincerely,

FEMP:Nickel

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure

Mr. James A. Saric
Mr. Tom Schneider

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DEC 21 1998

cc w/enclosure:

G. Jablonowski, USEPA-V, SRF-5J
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T. Schneider, OEPA-Dayton (total of 3 copies of enc.)
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R. Vandegrift, ODH
F. Barker, Tetra Tech
AR Coordinator, FDF/78

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cc w/o enclosure:

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**DOE RESPONSES TO U.S. EPA COMMENTS ON
"CHARACTERIZATION SUMMARY OF THE AREA 1, PHASE II TRAP RANGE"
(REVISION 0, OCTOBER 1998)
AND
CERTIFIED FOR CONSTRUCTION DESIGN DOCUMENTS FOR
THE AREA 1, PHASE II TRAP RANGE STABILIZATION PACKAGE**

GENERAL COMMENT

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: Not Applicable (NA) Page #: NA

Line #: NA

Original General Comment #: 1

Comment The characterization summary states in several places, including Section 2.0 (Page 3, Line 15), Section 3.0 (Page 5, Line 10), Section 5.1 (Page 7, Lines 4 and 7), and Section 5.2 (Page 9, Line 2), that Appendix 1 presents all the analytical data and sampling locations used to create the summary. However, Appendix 1 is not included in the review copy of the document and is not specified in the document's table of contents. The appendix should be submitted for review.

Response: Appendix 1 of the Characterization Summary was inadvertently left out of the initial submittal. Appendix 1, showing all inorganic analytical data from the Trap Range Area, will be submitted with this comment response document for EPA review.

Action: Appendix 1, showing all inorganic analytical data from the Trap Range Area, will be submitted with this comment response document for EPA review.

SPECIFIC COMMENT

Commenting Organization: U.S. EPA

Commentor: Saric

Specification: 02211 Page #: NA

Line #: NA

Original Specific Comment #: 1

Comment: Section 1.5 of the specification requires the contractor to prepare and submit at treatability study work plan, a treatability study report, a verification of treatment sampling plan, and a full-scale stabilization work plan. Upon their completion, these documents should be submitted to the U.S. Environmental Protection Agency (U.S. EPA) for review.

Response: The following documents will be submitted to U.S. EPA and Ohio EPA for their information: Treatability Study Work Plan, Treatability Study Report and Full-Scale Stabilization Work Plan. If EPA has a suggestion to improve any of these documents, we will consider it prior to FDF-approval. U.S. EPA and Ohio EPA will have review and approval authority over the Verification of Treatment Sampling Plan and the Verification of Treatment Report.

Action: No Action.

APPENDIX 1

Sample Identification Numbers, Locations, Depths, and Analytical Results

Sample ID	Depth (ft)	Easting	Northing	Parameter	Result	Units	Qualifier
A1P2TRAP-1-2-M-X-1	N/A	N/A	N/A	Arsenic	1.8	ug/L	U
A1P2TRAP-11-1-M-X-2	N/A	N/A	N/A	Arsenic	1.8	ug/L	U
A1P2TRAP-32-1-M-X-5	N/A	N/A	N/A	Arsenic	1.8	ug/L	U
A1P2TRAP-44-1-M-X-3	N/A	N/A	N/A	Arsenic	1.8	ug/L	U
A1P2TRAP-46-1-M-X-4	N/A	N/A	N/A	Arsenic	1.8	ug/L	U
A1P2TRAP-23-1-M	0 - 0.5	1351800	478700	Arsenic	2.9	mg/kg	
A1P2TRAP-16-1-M	0 - 0.5	1351300	478800	Arsenic	3.1	mg/kg	
A1P2TRAP-50-1-M	0 - 0.5	1351700	478200	Arsenic	3.18	mg/kg	
A1P2TRAP-31-1-M	0 - 0.5	1351700	478550	Arsenic	3.2	mg/kg	
A1P2TRAP-26-1-M	0 - 0.5	1350700	478600	Arsenic	3.3	mg/kg	
A1P2TRAP-42-1-M	0 - 0.5	1350750	478350	Arsenic	3.42	mg/kg	
A1P2TRAP-29-1-M	0 - 0.5	1351800	478600	Arsenic	3.5	mg/kg	
A1P2TRAP-15-1-M	0 - 0.5	1351350	478350	Arsenic	3.6	mg/kg	
A1P2TRAP-17-1-M	0 - 0.5	1351800	478800	Arsenic	3.7	mg/kg	
A1P2TRAP-37-1-M	0 - 0.5	1351350	478450	Arsenic	3.7	mg/kg	
A1P2TRAP-32-1-M	0 - 0.5	1350600	478500	Arsenic	3.8	mg/kg	
A1P2TRAP-44-1-M	0 - 0.5	1351700	478350	Arsenic	3.9	mg/kg	
A1P2TRAP-24-1-M	0 - 0.5	1350550	478650	Arsenic	4.1	mg/kg	
A1P2TRAP-27-1-M-D	0 - 0.5	1350855	478595	Arsenic	4.1	mg/kg	N
A1P2TRAP-39-1-M	0 - 0.5	1350900	478400	Arsenic	4.13	mg/kg	
A1P2TRAP-7-1-M	0 - 0.5	1351650	479000	Arsenic	4.2	mg/kg	
A1P2TRAP-38-1-M	0 - 0.5	1351750	478450	Arsenic	4.25	mg/kg	
A1P2TRAP-4-1-M	0 - 0.5	1351400	479050	Arsenic	4.3	mg/kg	
A1P2TRAP-22-1-M	0 - 0.5	1351500	478300	Arsenic	4.3	mg/kg	
A1P2TRAP-36-1-M	0 - 0.5	1351250	478450	Arsenic	4.3	mg/kg	
A1P2TRAP-11-1-M	0 - 0.5	1351450	478900	Arsenic	4.4	mg/kg	
A1P2TRAP-14-1-M	0 - 0.5	1351750	478850	Arsenic	4.4	mg/kg	
A1P2TRAP-25-1-M	0 - 0.5	1351650	478650	Arsenic	4.4	mg/kg	
A1P2TRAP-27-1-M	0 - 0.5	1350855	478595	Arsenic	4.4	mg/kg	N
A1P2TRAP-27-2-M-D	0.5 - 1.0	1350855	478595	Arsenic	4.4	mg/kg	N
A1P2TRAP-43-1-M	0 - 0.5	1351000	478350	Arsenic	4.42	mg/kg	
A1P2TRAP-47-1-M	0 - 0.5	1351600	478250	Arsenic	4.44	mg/kg	
A1P2TRAP-5-1-M	0 - 0.5	1350850	479000	Arsenic	4.5	mg/kg	
A1P2TRAP-13-1-M	0 - 0.5	1350850	478850	Arsenic	4.6	mg/kg	
A1P2TRAP-3-2-M-D	0.5 - 1.0	1350944	479044	Arsenic	4.7	mg/kg	N
A1P2TRAP-45-1-M-D	0 - 0.5	1350900	478300	Arsenic	4.7	mg/kg	N
A1P2TRAP-6-1-M	0 - 0.5	1350950	479000	Arsenic	4.8	mg/kg	
A1P2TRAP-45-1-M	0 - 0.5	1350900	478300	Arsenic	4.8	mg/kg	N
A1P2TRAP-46-1-M	0 - 0.5	1351150	478350	Arsenic	4.82	mg/kg	
A1P2TRAP-48-1-M	0 - 0.5	1350600	478200	Arsenic	4.84	mg/kg	
A1P2TRAP-19-1-M	0 - 0.5	1350800	478700	Arsenic	4.9	mg/kg	
A1P2TRAP-20-2-M	0.5 - 1.0	1351007	478692	Arsenic	4.9	mg/kg	
A1P2TRAP-27-2-M	0.5 - 1.0	1350855	478595	Arsenic	4.9	mg/kg	N

APPENDIX 1

Sample Identification Numbers, Locations, Depths, and Analytical Results

Sample ID	Depth (ft)	Easting	Northing	Parameter	Result	Units	Qualifier
A1P2TRAP-3-1-M	0 - 0.5	1350944	479044	Arsenic	5	mg/kg	N
A1P2TRAP-18-1-M	0 - 0.5	1351700	478750	Arsenic	5	mg/kg	
A1P2TRAP-49-1-M	0 - 0.5	1351200	478200	Arsenic	5.09	mg/kg	
A1P2TRAP-3-1-M-D	0 - 0.5	1350944	479044	Arsenic	5.1	mg/kg	N
A1P2TRAP-41-1-M	0 - 0.5	1351500	478400	Arsenic	5.16	mg/kg	
A1P2TRAP-12-1-M	0 - 0.5	1351550	478900	Arsenic	5.2	mg/kg	
A1P2TRAP-21-2-M	0.5 - 1.0	1351054	478713	Arsenic	5.2	mg/kg	N
A1P2TRAP-40-1-M	0 - 0.5	1351100	478400	Arsenic	5.22	mg/kg	
A1P2TRAP-2-1-M	0 - 0.5	1350938	479056	Arsenic	5.3	mg/kg	
A1P2TRAP-21-2-M-D	0.5 - 1.0	1351054	478713	Arsenic	5.3	mg/kg	N
A1P2TRAP-8-1-M	0 - 0.5	1350650	478950	Arsenic	5.5	mg/kg	
A1P2TRAP-10-1-M	0 - 0.5	1350950	478900	Arsenic	5.6	mg/kg	
A1P2TRAP-34-1-M	0 - 0.5	1351600	478500	Arsenic	5.6	mg/kg	
A1P2TRAP-35-1-M	0 - 0.5	1350750	478450	Arsenic	5.8	mg/kg	
A1P2TRAP-30-1-M	0 - 0.5	1350800	478550	Arsenic	5.9	mg/kg	
A1P2TRAP-3-2-M	0.5 - 1.0	1350944	479044	Arsenic	6.2	mg/kg	N
A1P2TRAP-9-1-M	0 - 0.5	1351250	478950	Arsenic	6.2	mg/kg	
A1P2TRAP-1-1-M	0 - 0.5	1350950	479100	Arsenic	6.4	mg/kg	
A1P2TRAP-33-2-M	0.5 - 1.0	1350950	478500	Arsenic	6.49	mg/kg	
A1P2TRAP-2-2-M	0.5 - 1.0	1350938	479056	Arsenic	6.9	mg/kg	
A1P2TRAP-33-1-M	0 - 0.5	1350950	478500	Arsenic	7.4	mg/kg	
A1P2TRAP-20-1-M	0 - 0.5	1351007	478692	Arsenic	8.6	mg/kg	
A1P2TRAP-28-2-M-D	0.5 - 1.0	1351060	478555	Arsenic	10.5	mg/kg	N
A1P2TRAP-28-2-M	0.5 - 1.0	1351060	478555	Arsenic	11.2	mg/kg	N
A1P2TRAP-21-1-M	0 - 0.5	1351054	478713	Arsenic	12.5	mg/kg	N
A1P2TRAP-21-1-M-D	0 - 0.5	1351054	478713	Arsenic	12.7	mg/kg	N
A1P2TRAP-28-1-M	0 - 0.5	1351060	478555	Arsenic	14.7	mg/kg	N
A1P2TRAP-28-1-M-D	0 - 0.5	1351060	478555	Arsenic	18.1	mg/kg	N
A1P2TRAP-1-2-M-X-1	N/A	N/A	N/A	Lead	1	ug/L	U
A1P2TRAP-11-1-M-X-2	N/A	N/A	N/A	Lead	1	ug/L	U
A1P2TRAP-32-1-M-X-5	N/A	N/A	N/A	Lead	2	ug/L	U
A1P2TRAP-44-1-M-X-3	N/A	N/A	N/A	Lead	2	ug/L	U
A1P2TRAP-46-1-M-X-4	N/A	N/A	N/A	Lead	2	ug/L	U
A1P2TRAP-11-1-M	0 - 0.5	1351450	478900	Lead	10.7	mg/kg	
A1P2TRAP-48-1-M	0 - 0.5	1350600	478200	Lead	12.3	mg/kg	
A1P2TRAP-17-1-M	0 - 0.5	1351800	478800	Lead	12.4	mg/kg	
A1P2TRAP-14-1-M	0 - 0.5	1351750	478850	Lead	12.9	mg/kg	
A1P2TRAP-38-1-M	0 - 0.5	1351750	478450	Lead	13.4	mg/kg	
A1P2TRAP-4-1-M	0 - 0.5	1351400	479050	Lead	13.6	mg/kg	
A1P2TRAP-12-1-M	0 - 0.5	1351550	478900	Lead	13.6	mg/kg	
A1P2TRAP-47-1-M	0 - 0.5	1351600	478250	Lead	13.6	mg/kg	
A1P2TRAP-8-1-M	0 - 0.5	1350650	478950	Lead	13.8	mg/kg	
A1P2TRAP-34-1-M	0 - 0.5	1351600	478500	Lead	14.2	mg/kg	

APPENDIX 1

Sample Identification Numbers, Locations, Depths, and Analytical Results

Sample ID	Depth (ft)	Easting	Northing	Parameter	Result	Units	Qualifier
A1P2TRAP-50-1-M	0 - 0.5	1351700	478200	Lead	14.5	mg/kg	
A1P2TRAP-7-1-M	0 - 0.5	1351650	479000	Lead	14.8	mg/kg	
A1P2TRAP-45-1-M	0 - 0.5	1350900	478300	Lead	14.8	mg/kg	*
A1P2TRAP-23-1-M	0 - 0.5	1351800	478700	Lead	14.9	mg/kg	
A1P2TRAP-44-1-M	0 - 0.5	1351700	478350	Lead	15.4	mg/kg	
A1P2TRAP-31-1-M	0 - 0.5	1351700	478550	Lead	15.7	mg/kg	
A1P2TRAP-15-1-M	0 - 0.5	1351350	478350	Lead	16	mg/kg	
A1P2TRAP-19-1-M	0 - 0.5	1350800	478700	Lead	17.6	mg/kg	
A1P2TRAP-3-2-M	0.5 - 1.0	1350944	479044	Lead	17.7	mg/kg	
A1P2TRAP-9-1-M	0 - 0.5	1351250	478950	Lead	17.8	mg/kg	
A1P2TRAP-37-1-M	0 - 0.5	1351350	478450	Lead	17.9	mg/kg	
A1P2TRAP-45-1-M-D	0 - 0.5	1350900	478300	Lead	18.2	mg/kg	*
A1P2TRAP-41-1-M	0 - 0.5	1351500	478400	Lead	18.4	mg/kg	
A1P2TRAP-42-1-M	0 - 0.5	1350750	478350	Lead	18.4	mg/kg	
A1P2TRAP-1-1-M	0 - 0.5	1350950	479100	Lead	18.6	mg/kg	
A1P2TRAP-46-1-M	0 - 0.5	1351150	478350	Lead	19.2	mg/kg	
A1P2TRAP-25-1-M	0 - 0.5	1351650	478650	Lead	19.4	mg/kg	
A1P2TRAP-2-2-M	0.5 - 1.0	1350938	479056	Lead	19.8	mg/kg	
A1P2TRAP-49-1-M	0 - 0.5	1351200	478200	Lead	19.9	mg/kg	
A1P2TRAP-18-1-M	0 - 0.5	1351700	478750	Lead	22.5	mg/kg	
A1P2TRAP-3-2-M-D	0.5 - 1.0	1350944	479044	Lead	22.6	mg/kg	
A1P2TRAP-27-2-M-D	0.5 - 1.0	1350855	478595	Lead	22.7	mg/kg	*
A1P2TRAP-32-1-M	0 - 0.5	1350600	478500	Lead	22.8	mg/kg	
A1P2TRAP-26-1-M	0 - 0.5	1350700	478600	Lead	23.9	mg/kg	
A1P2TRAP-16-1-M	0 - 0.5	1351300	478800	Lead	24.3	mg/kg	
A1P2TRAP-13-1-M	0 - 0.5	1350850	478850	Lead	24.5	mg/kg	
A1P2TRAP-29-1-M	0 - 0.5	1351800	478600	Lead	24.5	mg/kg	
A1P2TRAP-27-2-M	0.5 - 1.0	1350855	478595	Lead	25.4	mg/kg	
A1P2TRAP-43-1-M	0 - 0.5	1351000	478350	Lead	25.7	mg/kg	
A1P2TRAP-2-1-M	0 - 0.5	1350938	479056	Lead	26.4	mg/kg	
A1P2TRAP-3-1-M	0 - 0.5	1350944	479044	Lead	27.4	mg/kg	
A1P2TRAP-3-1-M-D	0 - 0.5	1350944	479044	Lead	28.1	mg/kg	
A1P2TRAP-22-1-M	0 - 0.5	1351500	478300	Lead	28.3	mg/kg	
A1P2TRAP-24-1-M	0 - 0.5	1350550	478650	Lead	28.9	mg/kg	
A1P2TRAP-39-1-M	0 - 0.5	1350900	478400	Lead	29.7	mg/kg	
A1P2TRAP-36-1-M	0 - 0.5	1351250	478450	Lead	37.4	mg/kg	
A1P2TRAP-35-1-M	0 - 0.5	1350750	478450	Lead	39.4	mg/kg	
A1P2TRAP-6-1-M	0 - 0.5	1350950	479000	Lead	39.9	mg/kg	
A1P2TRAP-30-1-M	0 - 0.5	1350800	478550	Lead	40	mg/kg	
A1P2TRAP-40-1-M	0 - 0.5	1351100	478400	Lead	52.2	mg/kg	
A1P2TRAP-33-2-M	0.5 - 1.0	1350950	478500	Lead	52.8	mg/kg	
A1P2TRAP-20-2-M	0.5 - 1.0	1351007	478692	Lead	53.5	mg/kg	
A1P2TRAP-10-1-M	0 - 0.5	1350950	478900	Lead	74.6	mg/kg	

APPENDIX 1

Sample Identification Numbers, Locations, Depths, and Analytical Results

Sample ID	Depth (ft)	Easting	Northing	Parameter	Result	Units	Qualifier
A1P2TRAP-5-1-M	0 - 0.5	1350850	479000	Lead	75.6	mg/kg	
A1P2TRAP-21-2-M-D	0.5 - 1.0	1351054	478713	Lead	77.3	mg/kg	*
A1P2TRAP-27-1-M	0 - 0.5	1350855	478595	Lead	96.2	mg/kg	*
A1P2TRAP-27-1-M-D	0 - 0.5	1350855	478595	Lead	112	mg/kg	*
A1P2TRAP-21-2-M	0.5 - 1.0	1351054	478713	Lead	151	mg/kg	*
A1P2TRAP-28-2-M-D	0.5 - 1.0	1351060	478555	Lead	239	mg/kg	*
A1P2TRAP-28-2-M	0.5 - 1.0	1351060	478555	Lead	281	mg/kg	*
A1P2TRAP-33-1-M	0 - 0.5	1350950	478500	Lead	784.9	mg/kg	
A1P2TRAP-21-1-M	0 - 0.5	1351054	478713	Lead	895	mg/kg	*
A1P2TRAP-20-1-M	0 - 0.5	1351007	478692	Lead	1079	mg/kg	
A1P2TRAP-21-1-M-D	0 - 0.5	1351054	478713	Lead	1150	mg/kg	*
A1P2TRAP-28-1-M-D	0 - 0.5	1351060	478555	Lead	2960	mg/kg	*
A1P2TRAP-28-1-M	0 - 0.5	1351060	478555	Lead	3730	mg/kg	*
A1P2TRAP-2-2-M	0.5 - 1.0	1350938	479056	TCLP Lead	1.8	ug/L	BW*
A1P2TRAP-3-1-M	0 - 0.5	1350944	479044	TCLP Lead	2.1	ug/L	BW*
A1P2TRAP-2-1-M	0 - 0.5	1350938	479056	TCLP Lead	2.2	ug/L	BW*
A1P2TRAP-3-1-M-D	0 - 0.5	1350944	479044	TCLP Lead	2.5	ug/L	BW*
A1P2TRAP-3-2-M	0.5 - 1.0	1350944	479044	TCLP Lead	6	ug/L	W*
A1P2TRAP-3-2-M-D	0.5 - 1.0	1350944	479044	TCLP Lead	6.6	ug/L	
A1P2TRAP-27-2-M	0.5 - 1.0	1350855	478595	TCLP Lead	25.4	ug/L	*
A1P2TRAP-20-2-M	0.5 - 1.0	1351007	478692	TCLP Lead	31.2	ug/L	U
A1P2TRAP-21-2-M	0.5 - 1.0	1351054	478713	TCLP Lead	31.2	ug/L	U
A1P2TRAP-21-2-M-D	0.5 - 1.0	1351054	478713	TCLP Lead	31.2	ug/L	U
A1P2TRAP-27-1-M-D	0 - 0.5	1350855	478595	TCLP Lead	80.6	ug/L	
A1P2TRAP-27-2-M-D	0.5 - 1.0	1350855	478595	TCLP Lead	97.5	ug/L	
A1P2TRAP-27-1-M	0 - 0.5	1350855	478595	TCLP Lead	107	ug/L	
A1P2TRAP-33-2-M	0.5 - 1.0	1350950	478500	TCLP Lead	130	ug/L	
A1P2TRAP-28-2-M-D	0.5 - 1.0	1351060	478555	TCLP Lead	1630	ug/L	
A1P2TRAP-20-1-M	0 - 0.5	1351007	478692	TCLP Lead	26700	ug/L	
A1P2TRAP-21-1-M	0 - 0.5	1351054	478713	TCLP Lead	15600	ug/L	
A1P2TRAP-21-1-M-D	0 - 0.5	1351054	478713	TCLP Lead	5280	ug/L	
A1P2TRAP-28-1-M	0 - 0.5	1351060	478555	TCLP Lead	46600	ug/L	
A1P2TRAP-28-1-M-D	0 - 0.5	1351060	478555	TCLP Lead	61500	ug/L	
A1P2TRAP-28-2-M	0.5 - 1.0	1351060	478555	TCLP Lead	7220	ug/L	
A1P2TRAP-33-1-M	0 - 0.5	1350950	478500	TCLP Lead	6000	ug/L	
Laboratory Qualifiers							
U = Undetect							
N = Spiked sample recovery not within control limits.							
W = Post digestion spike for Furnace AA analysis is out of control limits (85% - 115%), while sample absorbance is less than 50% of spike absorbance							
B = Reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).							
* = Duplicate analysis not within control limits							