

# ER/WM&I DDT



000111019

RFCA Milestone

**Source/Driver:** (Name & Number from ISP, IAG milestone, Mgrnt. Action, Corres. Control, etc.)

**Closure #:** (Outgoing Correspondence Control #, if applicable)

**Due Date**

A. M. Tyson *AT*  
**Originator Name**

*G. D. DiGregorio*  
G. D. DiGregorio  
**QA Approval**

A. M. Tyson *AT*  
**Contractor Manager(s)**

Ann Sieben *ACS w/ changes both*  
**Kaiser-Hill Program Manager(s)**

T. G. Hedahl  
**Kaiser-Hill Director**

**Document Subject:** 4/14/97  
PROPOSED CESSATION OF EXCAVATION AT THE MOUND SITE - AMF-010-07 - 8

**Discussion/Issues:**

As we discussed with you on April 10, 1997, we proposed the cessation of excavation at the Mound Site. Following the collection of 14 samples from the bottom of the Mound excavation on Tuesday, the analytical results showed two outlying samples. Both of these samples were collected west of the center of the pit base. The sample results, as attached, were 12 ppm and 78 ppm (estimated) tetrachloroethylene. The RFCA Tier I action levels for this analyte is 11.5 ppm. The second sample was re-analyzed to obtain a concentration within the instruments linear range. The new result is 86 ppm tetrachloroethylene.

With the majority of the source removed, and the excavation reaching depths beyond the limitations of the current excavation plan, we agreed to terminate the source removal based on the following decisions:

1. The limits as proposed in the PAM have been met. Section 3.2.1 of the PAM references the limiting condition being the excavation of the top 2-3 feet of the highly weathered bedrock. In the field, bedrock was encountered at a depth of 12 feet. The current excavation has gone 5 feet into bedrock, reaching a total depth of 17 feet.  
*Current excavation base is at approximately a nearby monitoring well.*
2. To continue excavation into the groundwater zone, a different excavation approach will have to be employed such as benching or shoring. The excavation is currently sloughing on the south side into the base of the hole; and the stability of the excavation is becoming uncertain. As a result, the RFETS team is concerned with the safety aspects of continuing to dig into this excavation. Alternative approaches to excavation will result in considerable change in the current scope of the project. Benching the excavation will be necessary since the hydraulic excavator has reached its limitations of its hydraulic reach in removing any more material at depths greater than 17 feet. Benching will result in large volumes of material being removed to achieve the necessary angle of safety.

**ADMIN RECORD**

*12-13*

3. The groundwater has been determined by sampling wells in the vicinity at 15.4 feet. Therefore, the excavation is at depths below the groundwater table. The excavation is not filling up with groundwater; and this is assumed to be due to the tight pore spaces and the low permeability of the moderately weathered claystone bedrock. The soil is, however, damp and "moist."

4. The highest original concentration of tetrachloroethylene detected at the Mound site was 760 ppm, reference Section 2.3.2 of the PAM. With the removal of approximately 700 yards of soils, the primary source has been excavated and removed. The soils are currently staged for onsite thermal desorption treatment. Any remaining volatile organics remaining in the groundwater should be treated through the passive groundwater treatment system being designed and installed this fiscal year for seep SW059, the Mound plume.

Based on the agreed negotiation with the DOE and the agencies, RMRS is proceeding with the demobilization and decontamination of the equipment and ancillary supplies associated with the excavation portion of the project. We are currently in discussions with the thermal desorption subcontractor to resolve questions regarding their proposal and hope to award a contract imminently.

CORRES. CONTROL  
 OUTGOING LTR. NO.  
 DOE ORDER #.

97-RF-02079

DIST.	LTR	ENC
MUSSEN, STAN		
BRAILSFORD, MARV		
BUHL, TONY		
BURDGE, LARRY		
HARDING, WYNN		
CARD, BOB		
HILL, JOHN		
MARTINEZ, LEN		
OGG, BOB		
PARKER, ALAN	X	X
PILLER, ROBERT		
RUOR, NANCY		
RUORHEIS, GARY		



April 16, 1997

97-RF-02079

John Rampe  
 Program Liaison Division  
 DOE, RFFO

PROPOSED CESSATION OF EXCAVATION AT THE MOUND SITE - AKS-012-97

ledahl, T. G.	X	X
nderson, Scott		
oyd, Russ		
rowe, Steve		
etamore, Drew		
orr, Kent		
ahn, Steve		
ickle, Gordon		
nnedy, Colburn		
hould, Russ		
sters, Mike		
eben, Ann	X	X
land, Jennifer		
Philips	X	X
Tyler	X	X
RES. CONTROL	X	X
MIN RECRD/080		
TS/T130G		

As we discussed with you on April 10, 1997, we proposed the cessation of excavation at the Mound Site. Following the collection of 14 samples from the bottom of the Mound excavation on Tuesday, the analytical results showed two outlying samples. Both of these samples were collected west of the center of the pit base. The sample results, as enclosed, were 12 ppm and 78 ppm (estimated) tetrachloroethylene. The RFCA Tier I action levels for this analyte is 11.5 ppm. The second sample was re-analyzed to obtain a concentration within the instruments linear range. The new result is 86 ppm tetrachloroethylene.

With the majority of the source removed, and the excavation reaching depths beyond the limitations of the current excavation plan, we agreed to terminate the source removal based on the following decisions:

- The limits as stated in the approved PAM have been met. Section 3.2.1 of the PAM references the limiting condition being the excavation of the top 2-3 feet of the highly weathered bedrock. In the field, bedrock was encountered at a depth of 12 feet. The current excavation has gone 5 feet into bedrock, reaching a total depth of 17 feet.
- To continue excavation below the current depth, a different excavation approach will have to be employed such as benching or shoring. The excavation is currently sloughing on the south side into the base of the hole; and the stability of the excavation is becoming uncertain. As a result, the RFETS team is concerned with the safety aspects of continuing to dig into this excavation. Alternative approaches to excavation will result in considerable change in the current scope of the project. Benching the excavation will be necessary since the hydraulic excavator has reached its limitations of its hydraulic reach in removing any more material at depths greater than 17 feet. Benching will result in large volumes of material being removed to achieve the necessary angle of safety.
- The groundwater has been determined by sampling wells in the vicinity to be at 15.4 feet. Therefore, the excavation is already below the groundwater table. The excavation is not filling up with groundwater; and this is assumed to be due to the tight pore spaces and the low permeability of the moderately weathered claystone bedrock. The soil is, however, damp and "moist." Because the concentration of 86 ppm is in soil below groundwater, we have no reason to believe the concentration will decrease with depth.
- The highest original concentration of tetrachloroethylene detected at the Mound site was 760 ppm, reference Section 2.3.2 of the PAM. With the removal of approximately 700 yards of soils, the primary source has been excavated and removed. The soils are currently staged for onsite thermal desorption treatment. Any remaining volatile organics remaining in the groundwater will be treated through the existing collection/treatment system in place at SW059 and will also be captured in the passive groundwater treatment system being designed and installed this fiscal year for Seep SW059, Mound Plume Project.

CLASSIFICATION:		
VI		
CLASSIFIED		
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER  
 SIGNATURE:  
 [Signature] per CEX-266-95  
 REPLY TO RFP CC NO.:

ACTION ITEM STATUS:  
 PARTIAL/OPEN  
 CLOSED

APPROVALS:

RIG. & TYPIST INITIALS:  
 AKS :bag

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 2/2 2

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John Rampe  
April 16, 1997  
97-RF-02079  
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Based on the agreed negotiation with the DOE and the agencies, RMRS is proceeding with the demobilization and decontamination of the equipment and ancillary supplies associated with the excavation portion of the project. The area of the excavation is being controlled and will be maintained in a safe configuration. We are currently in discussions with the thermal desorption subcontractor to resolve questions regarding their proposal and hope to award a contract imminently.

The RFCA milestone requires source removal and soil treatment at the Mound. Based on our data and the conference call with the agencies summarized in this letter, we are stating that the source removal is complete.



A. K. Sieben  
Waste & Remediation Operations  
Kaiser-Hill Company, L.L.C.

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Orig. and 1 cc - J. Rampe

Enclosure:  
As Stated

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