TRC

EXCAVATION WORK PLAN

(Canal Area, BV, C + E)

Dover Chemical Corporation
Dover, Ohio

Prepared for:
Dover Chemical Corporation
3676 Davis Road N.W.
Dover, Ohio

Prepared by:
TRC Environmental Corporation
Boott Mills South
116 John Street
Lowell, Massachusetts

TRC Project No.: 41768-0010

July 2006

Final

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1.0 INTRODUCTION

This work plan describes the actions that will be taken, as required by the Administrative Order by Consent (AOC), to remediate the Lagoon/Canal Area soils along with soils in Plant Areas BV, C, and E. Dover Chemical has retained TRC Environmental Corporation to assist with the actions described in this excavation plan. The format of this document follows that required per the United States Environmental Protection Agency (EPA) letter dated October 6, 2005. The letter is included as Attachment A. All site work shall be conducted in accordance with the Health and Safety Plan (HASP) (Framatome, 2003) and the Quality Assurance Plan (QAPP) (Framatome, 2003). Amendments to the HASP and QAPP, which address specific tasks associated with this work, are provided as Attachments D and F. All sampling work shall be conducted in accordance with the Field Sampling Plan (FSP) (Framatome, 2003).

The Dover Chemical site is located in Tuscawaras County in east central Ohio. The site is approximately 60 acres and consists of a main plant area east of Interstate 77 (I-77) along with a parcel west of I-77 which includes an Abandoned Canal/Lagoon area and a wooded low lying area which require certain remedial activities pursuant to the AOC. Land use around the facility is varied and includes industrial, commercial, and residential areas. Industrial facilities are located to the north and south. Several blocks of residences are located east of the site and extend to the north and south.

Dover Chemical Corporation was incorporated in 1951 and was acquired by ICC Industries in 1975. The facility currently produces organic phosphites and chlorinated paraffin products. The chlorinated paraffin products are used in the manufacture of pressure lubricants, plasticizers, and flame retardants for vinyl products and the organic phosphites are used as antioxidants in the polyolefin industry. Over the 1950s to the early 1970s, site activities introduced site-related constituents into the environment through the deposition of dichlorobenzene in a low lying area in the southwestern corner of the facility, the temporary storage of hexachlorocyclohexane (BHC) on the ground next to Building 21, and unintentional process spills and leaks. Soils contamination was found during the Remedial Investigation/Feasibility Study (RI/FS) in 1991. Plant area soils contained polychlorinated dibenzodioxins (PCDDs), dibenzofurans (PCDFs), chlorobenzenes, carbon tetrachloride, and hexachlorobenzene (HCB). Lagoon area soils contained PCDDs and PCDFs. Abandoned Canal Area soils contained PCDDs, PCDFs, chlorobenzene, 1,3-dichlorobenzene, 1,2,4-trichlorobenzene and HCB. Dover and the EPA entered into an Administrative Order by Consent, Docket No. V-W-01-C-619 (AOC) to mitigate a direct contact risk to workers from the contaminated soils.

2.0 OVERVIEW OF AOC REQUIREMENTS FOR SOIL REMOVAL

All work will be performed in accordance with all applicable federal and state regulatory requirements. A summary of the requirements for remediation of the Lagoon/Canal area and Subject Plant areas as specified in the AOC follows.

2.1 Abandoned Canal/Lagoon Area

The following non-time critical removal actions will be performed during the excavation of Canal area soils:

- The areas that contain contaminated soils/sediments that exceed the ecological screening level for dioxin will be excavated up to a maximum removal depth of 3 feet for the first 50 feet of the old canal (beginning from the historical point where wastewater entered the canal) and 1 foot along the rest of the canal area requiring excavation.

- The top 1 foot of soil over the 4,400 square foot area identified from samples collected after the feasibility study was developed will be removed. Any areas that are excavated shall be backfilled and returned to pre-excavation grade.

- In the areas where removal of dioxin contaminated soil stops at a maximum depth, the soil/sediment will be sampled and analyzed in order to document the levels of dioxin contamination which will be left in place. No additional soil/sediment removal will be performed regardless of the findings from soil analysis.

- If the concentration of dioxin in the soils below the maximum depth remains above the ecological screening level, a marker, such as an orange polyethylene netting, will be laid on top of the soil/sediment at this depth in order to make it clear to anyone excavating in these areas that these soils are not to be disturbed. The area will then be backfilled to present grade to prevent erosion and institutional controls will be implemented to maintain the cover.

- The excavated soil/sediment will be treated as needed to meet off-site disposal requirements, including land disposal restrictions. The material will be transported to an off-site approved landfill that is acceptable under the off-site rule.

- Backfilled areas will receive seed and be re-vegetated.

- A fence barrier will be installed around the Lagoon area.

- "No Fishing" and "No Trespassing" signs are already posted at all access points around the Lagoon Area. The signs will continue to be actively maintained and replaced as needed.

- Following excavation, the barrier and signs will be regularly monitored and maintained. Areas of soil erosion will be repaired as it occurs.

2.2 Plant Area

The following non-time critical removal actions will be performed for the excavation of Plant areas BV, C, and E:

- The areas exceeding the action level (5 ppb (TEQs) dioxin) for dioxin-contaminated soils in the Plant area, will be excavated. The maximum depth of excavation is controlled by a typical industrial building foundation depth of up to 4 feet.

- All excavated and stockpiled soil and materials will be disposed of off-site in an approved landfill that is acceptable under the NCP's off-site rule. Excavated and stockpiled soil and materials will be treated as necessary to meet off-site disposal requirements, including land disposal restrictions.

- In the areas where removal of dioxin-contaminated soil stops at a depth of 4 feet, the soil will be sampled and analyzed in order to document the levels of dioxin contamination which will be left in place. No additional soil removal will be performed regardless of the findings from soil analysis.

- If the concentration of dioxin in the soils below 4 feet remains above the action level of 5 ppb, a marker, such as an orange polyethylene netting, will be laid on top of the soil at this depth in order to make it clear to anyone excavating in these areas that these soils are not to be disturbed. The area will then be backfilled with clean soil to present grade and designed with consideration for future site use and the prevention of soil erosion. A restriction will be placed on the property deed to restrict excavation below a depth of 4 feet. Institutional controls will also be instituted to ensure that the integrity of the covers is maintained.

- The excavated areas will be backfilled with imported clean soil.

3.0 OVERVIEW OF ODOT PERMIT REQUIREMENTS

A permit (No. 11-2006-0138) to gain access to the Canal area from I-77 was issued by the Ohio Department of Transportation (ODOT) on November 11, 2005. Dover\TRC Environmental plans to construct a temporary access road off southbound Exit 83, Dover\Sugar Creek. The temporary access road will be constructed of filter fabric and #2 stone and will be installed by the excavation contractor.

Dover\TRC Environmental will work with Area Wide Protective of Akron, Ohio or a similar local vendor to implement all necessary traffic controls and requirements as outlined in the permit. The following permit requirements shall be implemented during the excavation of soils from the Canal area:

- Working hours restricted to 9 AM to 3 PM. All ramp and deceleration restrictions must be removed by 3 PM daily. Work is prohibited during inclement weather such as fog, rain, or snow and ice conditions.
- An electronic message board must be set up 1 mile in advance of work zone notifying travelers of Shoulder Work Ahead – Trucks entering and exiting highway – Use ramp with Caution.
- A uniformed patrolman with a car with flashing lights will be used to control trucks re-entering on the ramp/deceleration lane during working hours.
- All dirt, gravel, or debris must be removed from the traveled portion of the roadway hourly.
- All damage to the roadway and right of way must be restored to like or better condition.
- A physical fence barrier must be in place during all non-working hours.
- No more than 2 trucks may be held in the Rest Area at one time.
- All trucks must leave the traveled lane and slow on the paved berm prior to leaving the roadway so that they do not inhibit traffic speed.
- All traffic controls depicted on the attached plan sheet are the responsibility of the permittee for placement and management.
- All barrels and cones must be kept in a clean condition to promote their reflectibility.
- All trucks must use the interchanges for entry onto I-77. Use of cross-overs is prohibited.

Upon completion of the excavation work adjacent to I-77, the temporary access road shall be removed and the area will be restored to pre-excavation conditions.

4.0 EXCAVATION CONTRACTOR

The excavation contractor will be Ronald Quinlan Excavation, 1647 State Route 39 NW, Dover, OH. Excavation personnel possess the appropriate OSHA HAZWOPFR Training and have performed similar remedial excavation for Dover chemical in the past.

5.0 EXTENT OF EXCAVATION

Pre-excavation soil samples have been collected from both the Abandoned Canal and Plant Areas C, E and BV in accordance with the approved RADWP (Framatone, 2003). The pre-excavation soil samples were collected from the Abandoned Canal in July 2004. These samples were collected to support a determination as to whether VOC concentrations in the materials to be excavated could be sufficient to impact disposal requirements. Pre-excavation soil samples were collected from Plant Areas C, E and BV to support determination of required excavation depths prior to mobilization for implementation of the remedial actions. The following discussion presents the results of these sampling and analysis activities.

5.1 Abandoned Canal Area

5.1.1 Abandoned Canal Pre-Excavation Sampling

Figure 1 provides a map of the Abandoned Canal area that indicates the proposed areas of excavation along with the proposed depths of excavation as required in the AOC. The results of the pre-excavation sampling, resubmitted in a letter to the EPA dated September 6, 2005, are included as Table 1 and Table 2 of this Excavation Plan. Table 1 presents the detected analytical results for the volatile organic compound (VOC) analyses. Table 2 presents the detected analytical results of Toxicity Characteristic Leaching Procedure (TCLP) testing performed on the two samples with the highest VOC concentrations. As shown in Table 2, no exceedances of the criteria for identifying a characteristic waste based on the TCLP testing were encountered. Using the areas and depths shown in Figure 1, the estimated volume of material requiring excavation is 650 cubic yards.

Sample nomenclature in Tables 1 and 2 follows that specified in Section 7.1 of the approved field sampling plan (Framatome, 2003). Each sample designation consists of an alpha-numeric sequence starting with the identification of the sample type and location. For those samples identified in Tables 1 and 2, this includes a "PS" for pre-excavation sample and "CAN" for canal. This is then followed by the soil boring number (i.e., 1 through 9) and the sample depth sequence (i.e., 6 to 12 inches below grade is number 1 in the depth sequence, 12 to 18 inches below grade is number 2 in the depth sequence, etc.). The third number in the sample identification provides additional detail on the sample type (i.e., a number 1 identifies an environmental sample, a number 2 identifies a duplicate sample). Any samples which have a "DL" in the sample identification are those which the laboratory had to re-run at a secondary dilution factor. For the samples presented in Table 2, the "CLP" notes these samples were submitted to the laboratory for toxicity characteristic leaching procedure testing.

Section 3.4.2 of the Response Action Design Work Plan (RADWP) states that prior to excavation, a composite sample of materials to be excavated and disposed will be collected from the 0-1 foot depth interval along the canal. This sample will be submitted to the offsite laboratory for TCLP lindane analysis. This sample will be collected at the

beginning of excavation activities at the Plant Areas. This will allow sufficient time for receipt of the analytical results prior to mobilization to the Abandoned Canal.

5.1.2 Abandoned Canal Removal Activities and Post Excavation Sampling

As required in the AOC, materials will be removed to a depth of 3 feet over the first 50 linear feet of the Abandoned Canal, north of the discharge structure. The remainder of the Abandoned Canal to be excavated, as identified in Figure 1, will be excavated to a depth of 1 foot. Beyond the limits of the Abandoned Canal, to the south, the area identified in the AOC as the 4,400 square foot area, will be excavated to a depth of 1 foot. All materials removed from the areas identified on Figure 1 will be disposed of at the offsite facility identified in Section 6.0 of this Excavation Plan.

Upon reaching the excavation depth, confirmatory soil samples will be collected from the bottom of the excavation. This sample will be submitted to the offsite laboratory for chemical analysis. Results of these analyses will be used to document contaminant concentrations which remain at depth within the footprint of the excavation. Confirmatory samples collected for VOC analyses will be collected as discrete samples from the nine locations within the canal where samples were collected from during the pre-excavation sampling conducted during the summer of 2004.

Also, composite soil samples will be collected from the areas to be excavated. A total of three composite soil samples will be submitted to the laboratory for dioxin analysis: one from the first 50 feet of the canal, one from the remainder of the canal footprint to be excavated and one from the 4,400 square foot area. The composite sample collected from the first 50 ft of the canal will include equal aliquots of soil from the two sample locations located within this area in 2004 (identified in Figure 1 as PSCAN-1 and PSCAN-2). An additional TCLP sample will be collected from the vicinity of PSCAN-2-5-2. The TCLP extract will be analyzed using detection limits lower than the Maximum Contaminant Levels (MCLs). The composite sample from the remainder of the canal will consist of equal aliquots collected from the remaining 7 sample locations included in the 2004 pre-excavation effort (identified in Figure 1 as PSCAN-3 through PSCAN-9). The 4,400 sq ft area will be divided into 4 quadrants. Equal soil aliquots from the center of each of these quadrants will be collected and included in a composite sample. At any location where confirmatory sample analytical results show contaminant concentrations remain above applicable criteria, a non-biodegradable hazard marker such as orange polyethylene netting will be placed at the excavation bottom prior to backfilling.

During the conduct of the removal actions at the Abandoned Canal area, dewatering activities may be required. Subsequent to submittal of this Excavation Plan, a Dewatering Plan will be submitted to EPA for review. The Dewatering Plan shall be submitted to EPA prior to initiation of excavation activities at the Abandoned Canal area.

5.1.3 Site Restoration

Once all required materials have been removed and analytical data is obtained for confirmation samples, the excavated areas will be backfilled to pre-excavation grades, as documented in Figure 1. Initially, materials used to build the temporary access road off of the paved area of Interstate 77 will be used to backfill the excavations. After the roadbed materials have been expended, the balance of the backfill materials at the Abandoned Canal area will consist of stockpiled loam materials presently stored on the Dover facility. A representative composite sample of the loam material will be collected and analyzed for Target Compound List (TCL) VOCs, SVOCs, and Target Analyte List (TAL) metals to demonstrate the material is not contaminated.

After all excavations have been backfilled to pre-excavation grades, the area will be hydroseeded. The hydroseeding will provide temporary stabilization against erosion of exposed soil surfaces until vegetation establishes. In accordance with the ODOT permit requirements, the area within the ODOT right-of-way will have to be restored to the satisfaction of the onsite ODOT representative. This will include removal of all remaining features associated with the removal action, re-construction of the fence and hydroseeding of disturbed areas within the right-of-way.

5.2 Plant Area

5.2.1 Plant Area Pre-Excavation Sampling

Table 3 presents a summary of the dioxin analytical results for the same samples. Concentrations which exceed the dioxin action level of 5 parts per billion (ppb) TEQ are shown in bold in Table 3. Table 4 presents a summary of the VOC and SVOC analytical results for the soil samples collected from Plant Areas C, E and BV. In addition to the contaminant concentrations, Table 4 also identifies the associated Total Risk ratio for each depth interval within in each sample grid based on the calculation described in Section 3.2 of the approved RADWP, using the following equation:

$$\frac{conc_A}{PRG_A} + \frac{conc_B}{PRG_B} + ... = Total\_Risk\_Ratio$$

where:

$conc_X$ = the soil concentration for contaminant X;

PRG_X = Preliminary Remediation Goal for contaminant X, provided in Table 3.1 of the Response Action Design Work Plan prepared by Framatome ANP (July 2003).

As stated in the approved RADWP, when the Total Risk Ratio exceeds 1, the soil must be excavated. As shown in Table 4, none of the sample results had a risk ratio greater than 1 below the 0 to 1 foot depth interval. Table 3 shows that there were exceedances for

dioxin in the 0 to 1 foot depth interval, the 1 to 2 foot depth interval, and the 2 to 3 foot depth interval. Based on the review of these two tables it is clear that the depth of excavation is dictated by dioxin concentrations. Additionally, it is noted that Plant Area BV requires excavation to a depth of 3 feet below grade. However, the maximum depth of excavation in the other areas is 2 feet below grade or less. Within Plant Area E, grids 3 and 5 do not require excavation based on the absence of any exceedances of applicable action levels.

5.2.2 Plant Area Removal Activities and Post Excavation Sampling

Figure 2 provides a map of the Plant areas BV, C and E that indicates the planned areas of excavation along with the proposed depths of excavation. Attachment B provides the laboratory analytical results for the pre-excavation soil characterization conducted in July, 2005. Tables 5 and 6 present the validated analytical results of the bottom of excavation samples as required in the Quality Assurance Project Plan (QAPP). Attachment C provides copies of the data validation reports for the sample results presented in Tables 5 and 6.

Similar to Tables 1 and 2, the sample nomenclature presented in Tables 5 and 6 are as specified in Section 7.1 of the approved FSP. In addition to the description of this nomenclature provided in Section 5.1.1 of this plan, the nomenclature in Tables 5 and 6 includes additional detail on the type of sample. The additional letters "CV" identify a composite VOC sample; "CSV" identifies a composite semi-volatile organic compound sample and "CD" identifies a composite dioxin sample.

Within certain areas to be excavated, access issues exist due to the presence of utilities or structures, as documented in EPA's October 4, 2005 email (provided as Attachment G). The specific issues are summarized below:

Area E

<u>Grid E8, Borings a through d</u>

This grid area is highly congested with railroad tracks and utilities. Access into and out of the area of this grid is also limited. Data for this portion of the facility collected during implementation of interim remedial actions in Areas AK and AL showed contamination concentrations drop below cleanup standards in the 6-12 inch depth interval.

Based on these considerations, pre-excavation soil sampling was not conducted. The remedial approach to be implemented will consist of scraping of the upper 12 inches (1 foot) of soil, accounting for footings and other features present, and covering the area with clean cover. Prior to placement of the clean cover, a composite confirmation soil sample for dioxin analysis and discrete VOC samples will be collected to document what if any concentrations of site-related contaminants of concern remain.

Grid E7 and Borings c and d in Grid E6

These borings were located directly over a corridor of subsurface utilities which include water, drain and electrical lines. For this reason, pre-excavation soil sampling was not performed at these locations. Soil borings E6a and E6b (the two more easterly borings in grid E6) were advanced and sampled.

Remedial options for these locations shall consider a similar approach as for Grid E8 (removal of some soil and replacement with a clean cover). The specifics of the remedy for these areas will depend on practical considerations of the field conditions including the construction details of the utilities (depth, etc.).

Area C

Grid C1 Borings a and b

Utility clearance for Area C found that borings a and b are located over an active septic system. Considering the layout of the system, the limited area being addressed in Area C and the location of boring c (immediately to the west) in Grid C1, there was no place to relocate the borings in manner to produce data of significant value relative to practical remedial options.

Based on this information, pre-excavation soil sampling efforts in Area C consisted of advancing and sampling borings c and d. Remedial options over the septic system will be similar to those discussed for other areas, consisting of removal of the upper soils and replacement with a clean cover.

Area BV

Grid BV1 Borings a and b

The locations of these two borings were within a laterally limited area which contains above and below ground utility lines and a concrete entrance ramp to Building 3. Due to these considerations, pre-excavation soil sampling will not be conducted at these two boring locations. Pre-excavation soil sampling will still be conducted at borings c and d in Grid BV1.

Remedial options for the area of borings a and b in Grid BV1 will be consistent with other areas discussed - provision of a clean cover.

As a result of these access issues, pre-excavation sampling was not conducted at any of the planned locations discussed above. To document site-related contaminant concentrations left in place, if any, confirmatory soil samples will be collected from all accessible grids prior to placement of clean soil cover. From each of these grids, one composite soil sample will be collected and submitted to the offsite laboratory for dioxin analysis. Sample collection for dioxin analysis will be performed following the same

compositing approach used for the Plant Area pre-excavation sampling conducted during the summer of 2005. In addition to the composite dioxin sample collected from each of these three grids, a discrete VOC soil sample will be collected. At any location where confirmatory sample analytical results show contaminant concentrations remain above applicable criteria, a non-biodegradable hazard marker such as orange polyethylene netting will be placed at the excavation bottom prior to backfilling. Confirmatory soils samples will be analyzed in accordance with SW-846 methods as identified in the addendum to the project Quality Assurance Project Plan (QAPP).

Based on the horizontal extents of excavation along with the indicated vertical extent below ground surface shown in Figure 2, the estimated in-place volumes of material requiring excavation for each area are:

Grid Area	Volume (cy)
BV	426
C	264
E	535

5.2.3 Site Restoration

After all required materials are removed from each Plant Area, the excavations will be backfilled to pre-excavation grades. Backfill materials will be bank-run material from a source operated by the local excavation contractor. These materials will be sampled and analyzed for a TCL VOCs and SVOCs and TAL metals prior to use as backfill at the site. These analyses will be performed in accordance with SW-846 methods as identified in the QAPP addendum. One sample of this material will be collected for each area it is to be used to document the chemical quality of materials used in each of these areas. Once each excavation has been backfilled to pre-excavation grades, the area will be restored in accordance with Dover Chemical's continued or planned future use of the area.

6.0 OFF-SITE DISPOSAL

Excavated soil materials shall be transported in lined and covered dump trucks to the Wayne Disposal, Inc. (WDI) Site #2 facility in Belleville, Michigan. This facility is a permitted disposal facility (EPA Identification No. MID #048 090 633). Similar materials from Dover Chemical have been disposed at this facility in the past.

7.0 ADDITIONAL CONTROLS

Attachment D, Amendment to the Health and Safety Plan, describes measures that will be implemented to monitor and contain any potential VOC emissions or particulate migration during excavation. Attachment F, Amendment to the Quality Assurance Project Plan (QAPP) for Construction details key personnel roles and responsibilities to ensure quality and describes the methods that will be used to document progress. This section describes the additional controls that Dover\TRC Environmental will implement in order to meet all of the requirements of the AOC.

7.1 Sediment and Erosion Control

The Abandoned Canal and the AOC-identified 4,400 square foot area are topographic low points relative to the surrounding area, and storm water runoff would be expected to be produced from these areas only under extreme storm events. However, to further minimize the potential for the migration of contaminated materials via erosion and runoff during the conduct of removal activities a line of silt fence or hay bales will be installed between the work area and any adjacent downhill surface water bodies, as identified in Figure 1.

7.2 Abandoned Canal Area Fence

The Lagoon area will be surrounded by a barrier fence that meets the requirements of the ODOT specification Section 607. The fence shall conform to the Type 47RA Fence detailed in the ODOT specifications.

Signs are currently posted and maintained around the perimeter of the Lagoon area. These signs are inspected monthly. An inspection form will be filled out during each inspection to document the monitoring and maintenance activities associated with both the fence and the signs around the Abandoned Canal and Lagoon area. These forms will identify the person(s) performing the inspections and any repairs required and/or implemented.

7.3 Institutional Controls

Additionally, the AOC requires institutional controls be implemented to ensure future use of areas with contaminant concentrations remaining upon completion of the removal actions. Dover Chemical had previously submitted draft language for deed restrictions to EPA for review and approval prior to implementation. The recording of the notice and restrictive covenants for the Site should occur sometime during the Summer of 2006. Once these restrictions are in place, Dover will monitor the areas of removal actions for any violations of these restrictions. Similar to the monitoring of the barrier fence at the Abandoned Canal and Lagoon area, inspections will be documented. Any violations of the restrictions will be addressed upon identification.

7.4 Soil Transportation and Truck Decontamination

To ensure site-related contamination is not transported off-site via truck traffic associated with the actions addressed in this Excavation Plan, proactive measures will be employed. All contaminated materials being disposed of offsite will be transported in lined trucks. After the materials are placed in these trucks, covers will be placed to seal in the contaminated materials. This shall be performed to prevent contaminants from being released during transportation.

Truck decontamination will consist of using a pressure washer to remove all visible dirt prior to each truck leaving the site. A decontamination pad will be constructed at Area H, as conducted in the past at the Dover facility. This decontamination pad will include and impermeable containment area sloped to a sump. A pump will then be used to transfer the accumulated decontamination water into a container for subsequent disposal via Dover's existing treatment system.

At the Lagoon/Abandoned Canal area a similar decontamination procedure will be employed. For activities at the Lagoon/Abandoned Canal area, decontamination activities will be performed prior to vehicles re-entering the paved right-of-way associated with I-77.

8.0 SCHEDULE

Figure 3 presents the proposed schedule for implementation of remedial activities at the Abandoned Canal and Plant Areas C, E, and BV.

9.0 REFERENCES

US EPA, Administrative Order by Consent, Docket No. V-W-01-C-619.

Framatome, 2003. "Response Action Design Work Plan, Framatome ANP DE&S, July 2003.

Framatome, 2003. "Response Action Design Work Plan, Attachment A: Field Sampling Plan, Framatome ANP DE&S, August 2003.

Framatome, 2003. "Response Action Design Work Plan, Attachment B: Quality Assurance Project Plan, Framatome ANP DE&S, May 2003.

Framatome, 2003. "Response Action Design Work Plan, Attachment C: Health and Safety Plan, Framatome ANP DE&S, April 2003.

Tables

TABLE 1 - SUMMARY OF PRE-EXCAVATION SOIL SAMPLING RESULTS FROM THE ABANDONED CANAL
DOVER CHEMICAL, DOVER, OH

Sample Designation	Sample Location (station number)	Sample Depth (inches below ground surface)	Carbon Tetrachloride	Monochlorobenzene	Tetrachloroethene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2,4-Trichlorobenzene	o-Xylene	Isopropylbenzene
		PRGs:	57,900		160,400			547,604			
PSCAN-1-1-1	0+00	6-12	ND	ND	3	ND	ND	ND	ND	ND	ND
PSCAN-1-2-1	0+00	12-18	ND	ND	ND	680 J	ND	640 J	370 J	ND	ND
PSCAN-1-3-1	0+00	18-24	ND	ND	ND	1,800	570 J	1,800	1,100	ND	ND
PSCAN-1-4-1	0+00	24-30	ND	ND	ND	2,000	830	1,200	1,800	ND	ND
PSCAN-1-5-1	0+00	30-36	ND	ND	ND	770	ND	480 J	1,000	ND	ND
PSCAN-2-1-1	0+50	6-12	ND	ND	ND	24,000 E	13,000	22,000 E	30,000 E	ND	ND
PSCAN-2-1-1DL	0+50	6-12	ND	ND	ND	39,000 D	11,000 D	34,000 D	46,000 D	ND	ND
PSCAN-2-2-1	0+50	12-18	ND	1,800	240	130,000 E	73,000 E	90,000 E	170,000 E	97	25
PSCAN-2-2-1DL	0+50	12-18	ND	ND	ND	330,000 D	97,000 D	210,000 D	370,000 D	ND	ND
PSCAN-2-3-1	0+50	18-24	ND	ND	ND	4,000	1,400	3,100	4,900	ND	ND
PSCAN-2-4-1	0+50	24-30	ND	2,700	ND	25,000 E	20,000 E	33,000 E	28,000 E	ND	ND
PSCAN-2-4-1DL	0+50	24-30	ND	2,800 D	ND	27,000 D	21,000 D	37,000 D	30,000 D	ND	ND
PSCAN-2-5-1	0+50	30-36	520	ND	ND	8,200	4,000	8,200	7,900	ND	ND
PSCAN-2-5-2	0+50	30-36	ND	8,600	ND	43,000 E	25,000 E	42,000 E	24,000 E	ND	ND
PSCAN-2-5-2DL	0+50	30-36	ND	12,000 D	ND	80,000 D	33,000 D	78,000 D	47,000 D	ND	ND
PSCAN-3-1-1	1+00	6-12	300 J	ND	ND	1,800	440 J	1,200 J	1,200 J	ND	ND
PSCAN-4-1-1	1+50	6-12	ND	ND	ND	1,500	ND	980 J	2,500	ND	ND
PSCAN-5-1-1	2+00	6-12	ND	ND	ND	9,900	2,800	6,500	97,000 E	ND	ND
PSCAN-5-1-1DL	2+00	6-12	ND	ND	ND	13,000 JD	ND	7,600 JD	120,000 D	ND	ND
PSCAN-6-1-1	2+50	6-12	ND	ND	ND	1,200 J	ND	870 J	2,000	ND	ND
PSCAN-7-1-1	3+00	6-12	ND	ND	ND	1,600	1,500	2,000	5,900	ND	ND
PSCAN-8-1-1	3+50	6-12	ND	ND	ND	ND	ND	ND	ND	ND	ND
PSCAN-8-1-2	3+50	6-12	ND	ND	ND	ND	ND	ND	ND	ND	ND
PSCAN-9-1-1	4+00	6-12	ND	ND	ND	710 J	ND	830 J	680 J	ND	ND

NOTES:

(1) Unless otherwise specified, analytical results in micrograms per kilogram (ug/kg).
(2) D - Analysis performed at a secondary dilution.
(3) E - Concentration exceeds the calibrated range of the instrument for that specific analysis.
(4) J - Estimated value
(5) ND - Not Detected

TABLE 2 - SUMMARY OF PRE-EXCAVATION SOIL SAMPLING
TCLP RESULTS FROM THE ABANDONED CANAL
DOVER CHEMICAL, DOVER, OH

Sample Designation	Sample Location (station number)	Sample Depth (inches below ground surface)	Carbon Tetrachloride	Monochlorobenzene	Tetrachloroethene	1,4-Dichlorobenzene
TCLP LIMIT (ug/L)			**500**	**100,000**	**700**	**7,500**
PSCAN-2-2-1-CLP	0+50	12-18	ND	20 J	ND	1,000 E
PSCAN-2-2-1-CLPDL	0+50	12-18	NA	NA	NA	1,200 D
PSCAN-2-5-2-CLP	0+50	30-36	ND	99	ND	4,300 E
PSCAN-2-5-2-CLPDL	0+50	30-36	NA	NA	NA	6,900 D

NOTES:
(1) Unless otherwise specified, analytical results in micrograms per liter (ug/L).
(2) D - Analysis performed at a secondary dilution.
(3) E - Concentration exceeds the calibrated range of the instrument for that specific analysis.
(4) J - Estimated value
(5) ND - Not Detected
(6) NA - Not Analyzed

TABLE 3
EVALUATION OF ONSITE PRE-EXCAVATION SAMPLING ANALYTICAL RESULTS
TO DETERMINE IF 5 ppb TEQ TARGET FOR DIOXINS IS EXCEEDED
DOVER CHEMICAL CORPORATION, DOVER, OHIO

Sample Depth (ft bgs)	Area-Grid Designations										
	BV-1	BV-2	C-1	E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8
0-1	NA	NA	NA	NA	NS	1,342.70	**10,352.00**	2,869.20	NA	NS	NS
1-2	NA	NA	**17,367.00**	**5,074.50**	NS	92.01	42.64	61.13	**31,834.00**	NS	NS
2-3	**23,397.90**	**19,210.50**	135.01	378.4	NS	8.027	33.54	18.268	697.34	NS	NS
3-4	3,720.20	77.03	NA	NA	NS	NA	NA	NA	NA	NS	NS
4-5	NA	NA	NA	NA	NS	NA	NA	NA	NA	NS	NS

TEQ concentrations in pg/g - action level = 5,000 pg/g

NS - Not sampled
NA - Not analyzed

TABLE 4
EVALUATION OF ONSITE PRE-EXCAVATION SAMPLING ANALYTICAL RESULTS
TO DETERMINE IF 10^{-5} TARGET FOR "OTHER CONSTITUENTS" IS EXCEEDED
IN THE 0 TO 1 FOOT BELOW GRADE INTERVAL
DOVER CHEMICAL CORPORATION, DOVER, OHIO

GRID BV-2

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	68	0.124169162
HCB	7.5	24	3.2
		Total Risk Ratio	**3.324169162**

GRID C-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.71	0.012262522
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	5.3	0.706666667
		Total Risk Ratio	**0.718929188**

GRID E-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.26	0.004490501
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	1.2	0.002191221
HCB	7.5	3.4	0.453333333
		Total Risk Ratio	**0.460015055**

GRID E-4

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	11	0.189982729
CHCl3	1,329.80	2.8	0.00210558
PCE	160.4	0.28	0.001745636
1,4-DCB	547.64	4	0.007304068
HCB	7.5	4.3	0.573333333
		Total Risk Ratio	**0.774471346**

GRID E-3

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0.55	0.00100431
HCB	7.5	0.085	0.01133333
		Total Risk Ratio	**0.01233764**

GRID E-5

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0.13	0.00023738
HCB	7.5	0.053	0.00706667
		Total Risk Ratio	**0.00730405**

GRID E-6

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	130	0.23738222
HCB	7.5	68	9.06666667
		Total Risk Ratio	**9.30404889**

TABLE - 4 Continued
EVALUATION OF ONSITE PRE-EXCAVATION SAMPLING ANALYTICAL RESULTS
TO DETERMINE IF 10^{-5} TARGET FOR "OTHER CONSTITUENTS" IS EXCEEDED
IN THE 1 TO 2 FOOT BELOW GRADE INTERVAL
DOVER CHEMICAL CORPORATION, DOVER, OHIO

GRID BV-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0.29	0.000529545
HCB	7.5	5.1	0.68
		Total Risk Ratio	**0.680529545**

GRID BV-2

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	10	0.17271157
CHCl3	1,329.80	12	0.00902391
PCE	160.4	1.1	0.00685786
1,4-DCB	547.64	17	0.03104229
HCB	7.5	0.13	0.01733333
		Total Risk Ratio	**0.23696896**

GRID C-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	1.2	0.020725389
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0.34	0.000620846
HCB	7.5	2.6	0.346666667
		Total Risk Ratio	**0.368012901**

GRID E-3

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0.41	0.05466667
		Total Risk Ratio	**0.05466667**

GRID E-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0.71	0.001296472
HCB	7.5	0.77	0.102666667
		Total Risk Ratio	**0.103963139**

GRID E-5

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0.14	0.00010528
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0.00010528**

GRID E-4

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.17	0.002936097
CHCl3	1,329.80	0.55	0.000413596
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0.4	0.053333333
		Total Risk Ratio	**0.056683026**

GRID E-6

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	20	0.34542314
CHCl3	1,329.80	3.6	0.00270717
PCE	160.4	0	0
1,4-DCB	547.64	22	0.04017238
HCB	7.5	0.89	0.11866667
		Total Risk Ratio	**0.50696936**

TABLE 4 - Continued
EVALUATION OF ONSITE PRE-EXCAVATION SAMPLING ANALYTICAL RESULTS
TO DETERMINE IF 10^{-5} TARGET FOR "OTHER CONSTITUENTS" IS EXCEEDED
IN THE 2 TO 3 FOOT BELOW GRADE INTERVAL
DOVER CHEMICAL CORPORATION, DOVER, OHIO

GRID BV-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	6.6	0.012051713
HCB	7.5	0.081	0.0108
		Total Risk Ratio	**0.022851713**

GRID BV-2

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.16	0.00276339
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0.15	0.02
		Total Risk Ratio	**0.02276339**

GRID C-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0**

GRID E-3

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0**

GRID E-1

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0	0
CHCl3	1,329.80	0	0
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0.086	0.011466667
		Total Risk Ratio	**0.011466667**

GRID E-5

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.32	0.00552677
CHCl3	1,329.80	0.44	0.00033088
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0.00585765**

GRID E-4

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.32	0.00552677
CHCl3	1,329.80	0.68	0.000511355
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0.006038125**

GRID E-6

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	8.2	0.14162349
CHCl3	1,329.80	1.9	0.00142879
PCE	160.4	0	0
1,4-DCB	547.64	5.4	0.00986049
HCB	7.5	0.052	0.00693333
		Total Risk Ratio	**0.1598461**

GRID E-5

Compound	Single Component PRG (mg/kg)	Detected Concentration (mg/kg)	Ratio of detect/PRG
CCl4	57.9	0.29	0.005008636
CHCl3	1,329.80	0.47	0.000353437
PCE	160.4	0	0
1,4-DCB	547.64	0	0
HCB	7.5	0	0
		Total Risk Ratio	**0.005362072**

TABLE 5 - SUMMARY OF PRE-EXCAVATION SOIL SAMPLING
DIOXIN RESULTS FROM THE PLANT AREA
DOVER CHEMICAL, DOVER, OHIO

Sample ID	Date Sampled	Total TEQ	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	OCDF	Total TCDF	Total PeCDF	Total HxCDF	Total HpCDF	Total TCDD	2,3,7,8-TCDD	Total PeCDD	1,2,3,7,8-PeCDD	Total HxCDD	1,2,3,7,8,9-HxCDD	Total HpCDD	1,2,3,4,6,7,8-HpCDD	OCDD	1,2,3,6,7,8-HxCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD
PSBV-1CD-4-1	7/13/2005	3,707.20 J	620	1,200	1,800 J	17,000	710	260 J	37,000 J	140,000 J	3,300 J	14,000 J	35,000 J	50,000 J	170	10	310	26 J	820	50	1,100	700	1,300 J	2,800	4,800	84	190
PSBV-2CD-4-1	7/13/2005	77.03 J	2	19	14	260	19	10	1,600	2,500	57	160	620	1,800	ND	ND	ND	ND	190	24	770	580	590	72	40	4 J	51
PSC-1CD-3-1	7/12/2005	135.01 J	6 J	24 J	49 J	590 J	28 J	ND	1,500 J	2,500 J	120 J	330 J	1,000 J	1,800 J	13	ND	35	3 J	240	38	810	580	1,000	100 J	86 J	6	63
PSC-1CD-3-2	7/12/2005	59.51 J	3 J	14 J	17 J	200 J	14 J	ND	610 J	1,200 J	68 J	170 J	440 J	780 J	15	ND	36	ND	240	34	790	580	800	49 J	37 J	4 J	56
PSE-1CD-3-1	7/14/2005	378.40 J	81	170	140	1,400	140	4 J	5,900 J	8,500 J	1,100	1,600	3,400	6,800 J	120	6	170	10	490	52	860	530	1,200	380	180	10 J	78
PSE-3CD-1-1	7/13/2005	1,342.70 J	160	410	330	4,200	420	ND	22,000 J	33,000	2,200 J	3,800	10,000	25,000 J	360	17	840	68	4,800	600	10,000	6,900	14,000	1,300	580	89	930
PSE-4CD-2-1	7/11/2005	42.64	2	12	14	170	14	ND	630	1,100	110	210	440	770	8	ND	32	ND	75	8	230	160	400	43	32	ND	16
PSE-5CD-1-1	7/12/2005	2,869.20 J	380	910	970	11,000	990	46 J	41,000 J	69,000 J	6,100 J	11,000	28,000	49,000 J	860	56	1,500	99	3,900	460	8,700	5,700	9,600	3,100	1,800	110	650
PSE-6CD-3-1	7/12/2005	697.34 J	71	280 J	230 J	3,200 J	170 J	57 J	8,600	14,000	970	2,200	7,400 J	12,000	130	UJ	140	ND	510	34 J	650	430	640	880 J	1,000	47 J	59 J

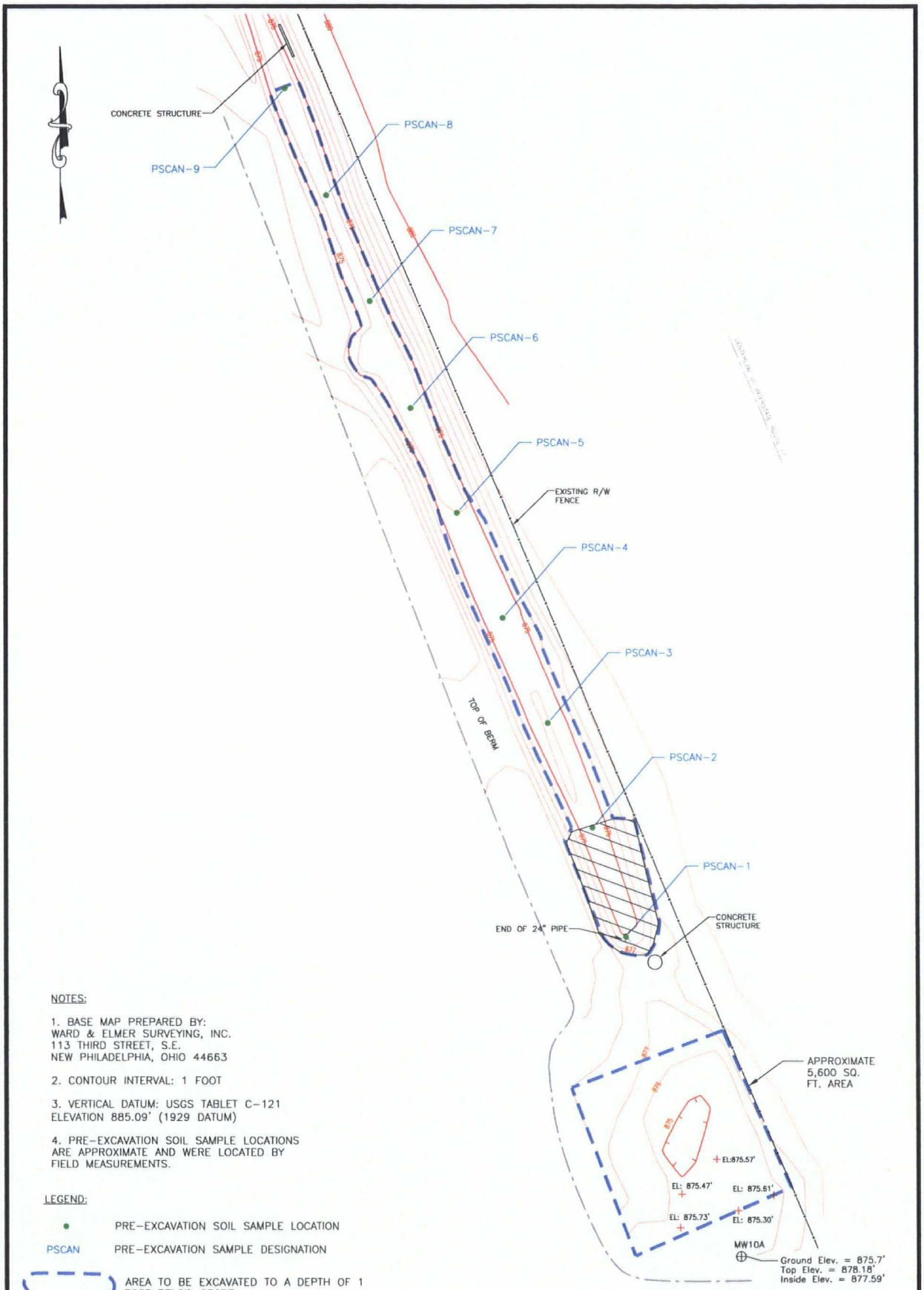
NOTES:
(1) Unless otherwise specified, analytical results in picograms per gram (pg/g). Action Level = 5,000 pg/g.
(2) J - Estimated Value
(3) ND - Not detected

TABLE 6 - SUMMARY OF PRE-EXCAVATION SOIL SAMPLING
VOC AND SVOC RESULTS FROM PLANT AREA
DOVER CHEMICAL, DOVER, OHIO

Sample ID	Date Sampled	Sample Depth (inches below ground surface)	Carbon tetrachloride	Chlorobenzene	Chloroform	1,4-Dichlorobenzene	Tetrachloroethene	Hexachlorobenzene
PSBV-1CV-3-1	7/13/2005	24-36	1,200 UJ	1,300 J	1,200 UJ	5,800 J	1,200 UJ	81 J
PSBV-2CV-3-5	7/13/2005	24-36	170 J	1,000 U	1,000 U	1,000 U	1,000 U	150 J
PSC-1CV-3-1	7/12/2005	24-36	1,100 UJ	1,100 UJ	1,100 UJ	1,100 UJ	1,100 UJ	390 U
PSC-1CV-3-2	7/12/2005	24-36	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	390 U
PSE-1CV-3-1	7/14/2005	24-36	1,100 UJ	240 J	1,100 UJ	1,100 UJ	1,100 UJ	86 J
PSE-1CV-3-2	7/14/2005	24-36	1,100 UJ	200 J	1,100 UJ	1,100 UJ	1,100 UJ	71 J
PSE-3CV-1-1	7/13/2005	0-12	1,300 U	1,300 U	1,300 U	550 J	1,300 U	170 J
PSE-4CV-2-1	7/11/2005	12-24	170 J	1,100 U	550 J	1,100 U	1,100 U	400 U
PSE-5CV-1-1	7/12/2005	0-12	1,100 U	1,100 U	1,100 U	130 J	1,100 U	53 J
PSE-6CV-3-1	7/12/2005	24-36	8,200 J	1,200 J	1,700 J	5,300 J	1,100 UJ	52 J

NOTES:
(1) Unless otherwise specified, analytical results in micrograms per kilogram (ug/kg)
(2) U - The compound was not detected at the indicated detection limit
(3) J - Estimated Value
(4) UJ - Estimated nondetect

Figures



NOTES:

1. BASE MAP PREPARED BY:
WARD & ELMER SURVEYING, INC.
113 THIRD STREET, S.E.
NEW PHILADELPHIA, OHIO 44663

2. CONTOUR INTERVAL: 1 FOOT

3. VERTICAL DATUM: USGS TABLET C-121
ELEVATION 885.09' (1929 DATUM)

4. PRE-EXCAVATION SOIL SAMPLE LOCATIONS ARE APPROXIMATE AND WERE LOCATED BY FIELD MEASUREMENTS.

LEGEND:

- PRE-EXCAVATION SOIL SAMPLE LOCATION
- PSCAN — PRE-EXCAVATION SAMPLE DESIGNATION
- AREA TO BE EXCAVATED TO A DEPTH OF 1 FOOT BELOW GRADE
- AREA TO BE EXCAVATED TO A DEPTH OF 3 FEET BELOW GRADE
- APPROXIMATE LOCATION OF HAY BALE/SILT FENCE

APPROXIMATE GRAPHIC SCALE
0' 20' 40' 80'

ABANDONED CANAL EXISTING CONDITIONS AND LIMIT OF EXCAVATION

DOVER CHEMICAL CORPORATION DOVER, OHIO

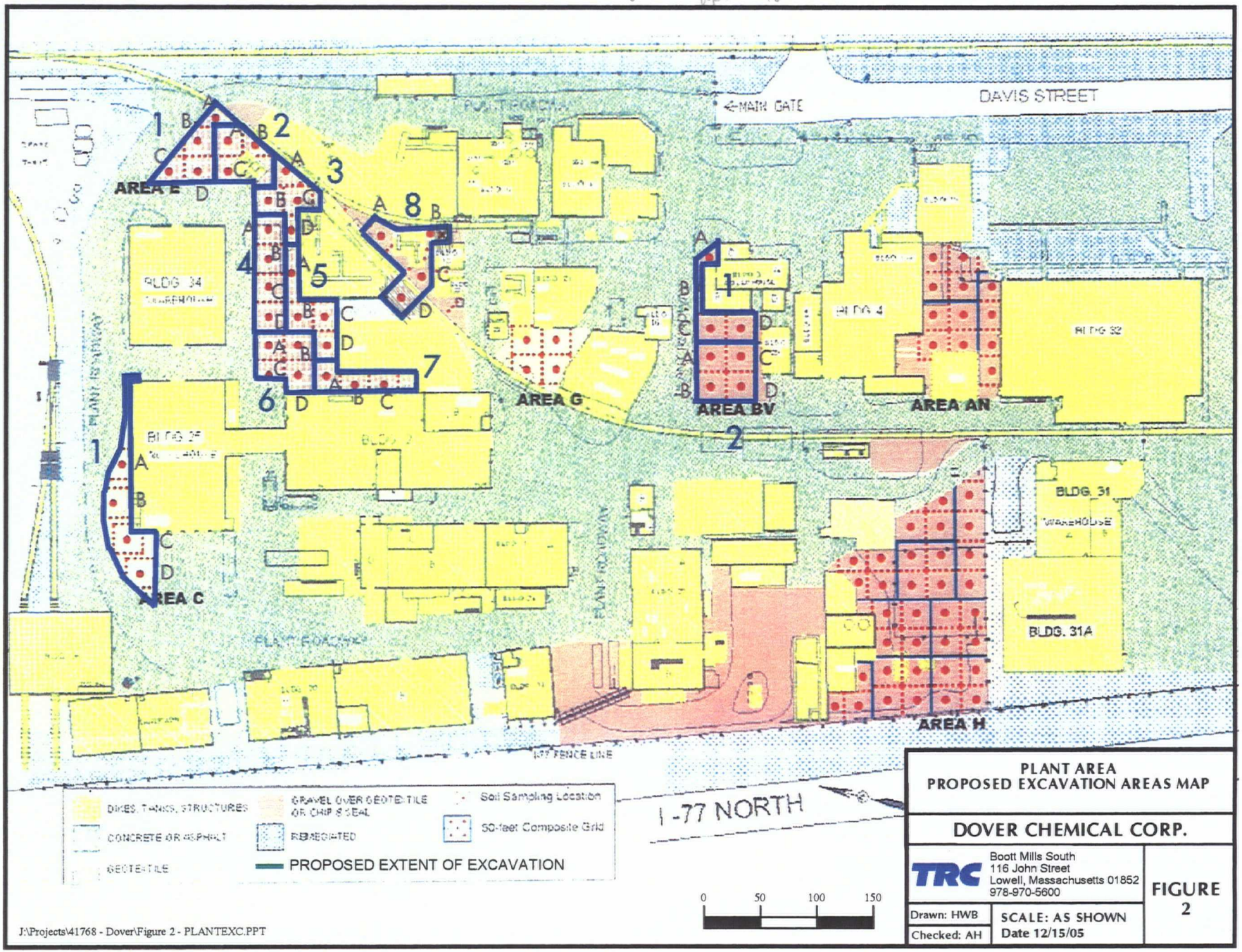
TRC
Boott Mills South
116 John Street
Lowell, Massachusetts 01852
(978) 970-5600

FIGURE 1

DRAWN BY: HWB | DATE: 5/31/06
CHECKED BY: ACH

FILE: T:\E_CAD\417680\dvrchem-2.dwg

West side of Building 18



PLANT AREA
PROPOSED EXCAVATION AREAS MAP

DOVER CHEMICAL CORP.

TRC
Boott Mills South
116 John Street
Lowell, Massachusetts 01852
978-970-5600

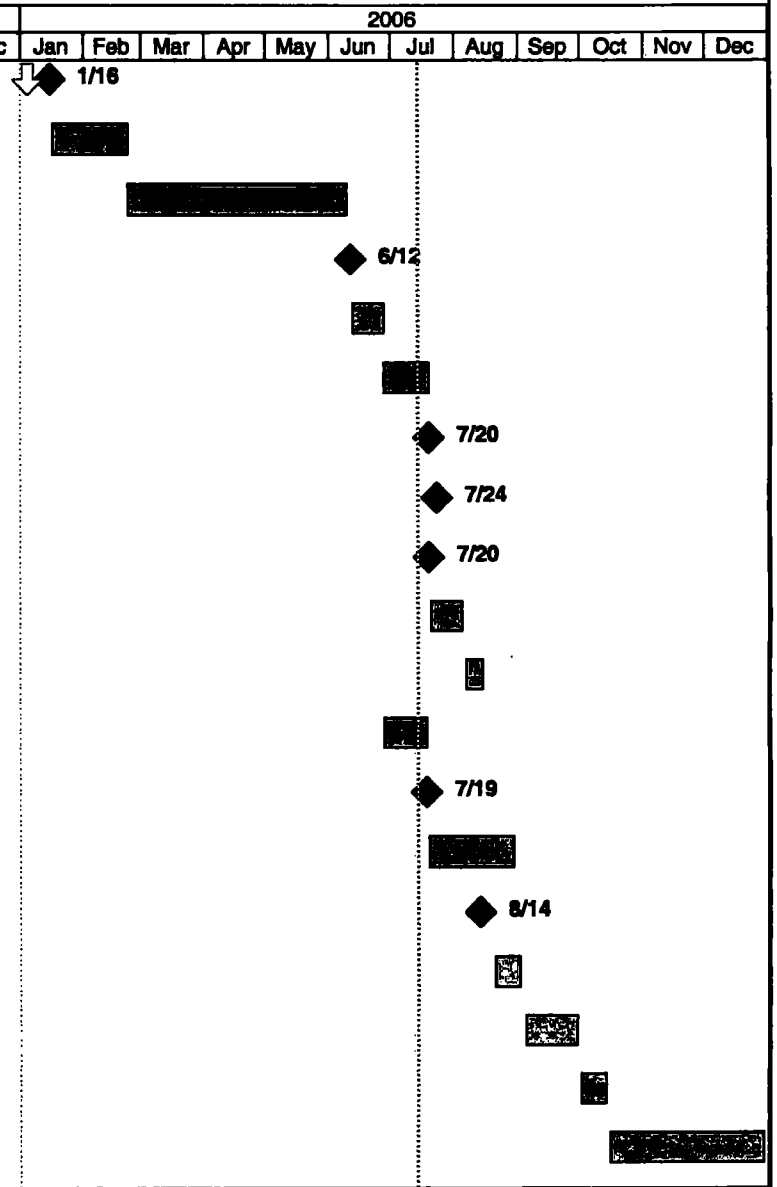
FIGURE 2

Drawn: HWB
Checked: AH
SCALE: AS SHOWN
Date 12/15/05

J:\Projects\41768 - Dover\Figure 2 - PLANTEXC.PPT

FIGURE 3
SCHEDULE FOR IMPLEMENTATION OF SOIL REMOVAL ACTIONS AT THE ABANDONED CANAL AND PLANT AREAS C, E AND BV DOVER CHEMICAL FACILITY, DOVER OHIO

ID	Task Name	Start	Finish
1	Submit Draft Exc. WP to U.S. EPA and OEAP	Mon 1/16/06	Mon 1/16/06
2	Regulatory Review	Tue 1/17/06	Wed 2/22/06
3	Clarify Requirements with EPA Based on Comments on Draft	Thu 2/23/06	Fri 6/9/06
4	Submit Final Exc. WP to U.S. EPA and OEPA	Mon 6/12/06	Mon 6/12/06
5	Regulatory Review of Exc. WP	Tue 6/13/06	Tue 6/27/06
6	Final Resolution of Regulatory Comments on Exc. WP	Wed 6/28/06	Wed 7/19/06
7	Submit Final Exc. WP	Thu 7/20/06	Thu 7/20/06
8	Receive Written Regulator Approval of Exc. WP	Mon 7/24/06	Mon 7/24/06
9	Submit Draft Dewatering Plan	Thu 7/20/06	Thu 7/20/06
10	Regulatory Review of Dewatering Plan	Fri 7/21/06	Fri 8/4/06
11	Address Regulatory Comments on Dewatering Plan	Mon 8/7/06	Mon 8/14/06
12	Initiate Mobilization Coordination	Wed 6/28/06	Tue 7/18/06
13	Onsite Mobilization - Plant Areas C, E and BV	Wed 7/19/06	Wed 7/19/06
14	Conduct Remedial Activities at Plant Areas C, E and BV	Thu 7/20/06	Tue 8/29/06
15	Onsite Mobilization - Abandoned Canal (traf controls/access road)	Mon 8/14/06	Fri 8/18/06
16	Conduct Remedial Activities at Abandoned Canal	Mon 8/21/06	Fri 9/1/06
17	Implement Other AOC-Required Activities in Canal Area	Tue 9/5/06	Fri 9/29/06
18	Demobilize - Site Restoration per ODOT	Mon 10/2/06	Fri 10/13/06
19	Generate/Submit Excavation Summary Report	Mon 10/16/06	Fri 12/29/06



Attachment A

EPA Letter Dated October, 2005 Regarding Modification of the AOC dated October 20, 2000 – Lagoon Area and Canal Soils/Sediment and Plant Area Soil

See draft January 2006.

L2006-270

Attachment B

Pre-excavation Analytical Sampling Results

See draft January 2006.

L2006-270

Attachment C

Data Validation Reports

See draft January 2006.

Attachment D

Amendment to the Health and Safety Plan (HASP)

See draft January 2006.

L2006-270

Attachment E

Ohio DOT Permit

See draft January 2006.

Attachment F

Amendment to the Quality Assurance Plan (QAPP)

See draft January 2006.

L2006-270

Attachment G

October 4, 2005 Email Message from EPA Regarding Pre-Excavation Sampling at Onsite Areas C, E and BV

L2006-270

Plumb, Mike

From: Martin.Lindab@epamail.epa.gov
Sent: Tuesday, October 04, 2005 10:36 AM
To: dave.rankin@doverchem.com; Plumb, Mike
Cc: Rik.Lantz@ttemi.com; michael.sherron@epa.state.oh.us
Subject: Pre-excavation sampling for on-site Area E, C and BV.

dover_chem2.pdf
(599 KB)

Dave Rankin and Mike Plumb:

This is a message following up on the issue of on-site pre-excavation sampling. I understand that at this time, you are beginning to work or have completed pre-excavation sampling in Area E, Area C, and Area BV.
These areas have been subdivided as illustrated in the attachment. At this time, what is summarized below for each area is an acceptable remedial option. However, in areas where you are not sampling, we are requesting that you remove at least the first 1 foot of soil and not the first 6 inches as indicated in the original proposal. If this is not acceptable please contact me so that we can discuss this further.

SUMMARY:

Area E

Grid E8, Borings a through d

This grid area is highly congested with railroad tracks and utilities.
Access into and out of the area of this grid is also limited.
Collection of samples at depth in this area would be difficult to complete and of questionable value relative to practical remedial options.

Data for this portion of the facility collected during implementation of interim remedial actions in Areas AK and AL showed contamination concentrations drop below cleanup standards in the 6-12 inch depth interval.

Based on these considerations, pre-excavation soil sampling will not to be conducted. The remedial approach to be implemented will consist of scraping of the upper 12 inches (1 foot) of soil, accounting for footings and other features present, and covering the area with clean cover. Prior to placement of the clean cover, a composite confirmation soil sample will be collected to document what if any concentrations of site-related contaminants of concern remain.

Grid E7 and Borings c and d in Grid E6

These five borings are located directly over a corridor of subsurface utilities which include water, drain and electrical lines. For this reason, pre-excavation soil sampling will not be performed at these locations. Soil borings E6a and E6b (the two more easterly borings in grid E6) will still be advanced and sampled.

Remedial options for these locations shall consider a similar approach as for Grid E8 (removal of some soil and replacement with a clean cover). The specifics of the remedy for these areas will depend on practical considerations of the field conditions including the construction details of the utilities (depth, etc.).

Area C

Grid C1 Borings a and b

Utility clearance for Area C found that borings a and b are located over an active septic system. Considering the layout of the system, the limited area being addressed in Area C

and the location of boring c (immediately to the west) in Grid C1, there is no place to relocate the borings in manner to produce data of significant value relative to practical remedial options.

Based on this information, pre-excavation soil sampling efforts in Area C shall consist of advancing and sampling borings c and d. Remedial options over the septic system will be similar to those discussed for other areas, consisting of removal of the upper soils and replacement with a clean cover.

Area BV

Grid BV1 Borings a and b

The locations of these two borings are within a laterally limited area which contains above and below ground utility lines and a concrete entrance ramp to Building 3. Due to these considerations, pre-excavation soil sampling will not be conducted at these two boring locations. Pre-excavation soil sampling will still be conducted at borings c and d in Grid BV1.

Remedial options for the area of borings a and b in Grid BV1 will be consistent with other areas discussed - provision of a clean cover.

(See attached file: dover_chem2.pdf)

Please let me know where we stand with the above action and what the time line is for soil excavation. I would also like an estimate on when other on-site areas will be addressed if possible. If you have any questions please feel free to contact me. Thanks for all your efforts.

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