ADDENDUM REPORT ON
REMEDIATION SITE CLOSURE
FORMER DOLLINGER FACILITY - SITE NO. 828078
BRIGHTON, NEW YORK

by

Haley & Aldrich of New York
Rochester, New York

for

NYSDEC - Region 8
Avon, New York

File No. 70007-061
May 2000

HALEY & ALDRICH

UNDERGROUND
ENGINEERING &
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17 May 2000
File No. 70007-061

NYSDEC - Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Attention: Mr. Todd Caffoe

Subject: Remediation Closure Report Addendum
Former Dollinger Facility - Site No. 828078
Brighton, New York

Dear Mr. Caffoe:

Haley & Aldrich of New York is pleased to present this Remediation Closure Report Addendum to meet reporting requirements of the Consent Order and describe remedial performance and activities associated with the Former Dollinger Facility in Brighton, New York. We are presenting this report on behalf of our client Bunzl USA, who acquired American Filtrona Corporation.

The purpose of this report is to document the status of site remediation relative to the selected remedy given in the Record of Decision (ROD) and subsequent remediation performed in cooperation with the NYSDEC, request approval for remediation closure, and again request NYSDEC complete reclassification of the site from Class 4 to Class 5, as described in Part 375.

I. BACKGROUND

The former Dollinger Corporation was a manufacturer of industrial filtration equipment between the early 1970s and late 1980s. Prior to spray painting filter parts, trichloroethene (TCE) was used to degrease the machined surfaces. American Filtrona Corporation purchased Dollinger in 1982 and the facility was closed and operations moved to Virginia in 1988. The property and building were then sold to Wilray Inc., the current owner, who leases space in the building for commercial and light industrial use.

Phase I and II studies and a hydrogeologic survey were conducted in the late 1980s as part of the facility closure. Extensive soil, sediment, surface water and groundwater sampling and analysis were performed, which indicated elevated levels of volatile and semi-volatile compounds in soil and water matrices. Areas of detected contamination were identified in

past reports and are still referred to as the former degreaser area, the former drum storage area, and retention pond sediments and surface water. The site was listed on the New York Registry of Inactive Hazardous Waste Disposal Sites in 1989. A Remedial Investigation and Feasibility Study were conducted in 1991 and 1992 in agreement with NYSDEC, which resulted in a Remedial Investigation Report (RI) by Haley & Aldrich dated November 1991 and a Feasibility Study Report (FS) dated March 1992. These activities were conducted to determine the extent of contamination, evaluate control/cleanup methods, and evaluate potential risks to human health and the environment. Results of the RI/FS process are summarized in the NYSDEC Record of Decision (ROD) dated January 1993. Relevant portions are summarized below.

II. SITE ACTIVITIES

The above referenced investigations concluded that the remedial alternatives required for this site were as follows. The reports listed in parentheses constitute documentation and submittal to the NYSDEC of the completed activity.

- Excavation of retention pond sediments and shallow surface soils for off site disposal. (Final Engineering Report, November 1994.
- Installation of cement-bentonite collars along the underground storm sewer to control migration of contamination in groundwater along the sewer bedding. (Final Engineering Report, November 1994.
- Installation of a 2-PHASE™ Extraction System to reduce VOC levels in soil and groundwater in two source areas, the former drum storage area and former degreaser area. (Final Engineering Report, November 1994)
- Decommission and salvage of 2-PHASE™ equipment. (Equipment Salvage Report, 23 June 1999).
- Decommission 26 site wells and associated process piping on 1-4 November 1999. (Well Decommissioning Report, 17 November 1999).
- Install Hydrogen Releasing Compound (HRC) as an innovative technology to stimulate additional reduction of chlorinated solvents in groundwater in the source area. (Hydrogen Release Compound Pilot Test Summary Report, 19 March 1999; this report).

A Site Activity Summary is included as Table 1.

As indicated above an overall site closure report was submitted to the NYSDEC, dated January 1999. This present report is intended to document the results of the HRC treatment and monitoring that have taken place beyond January 1999 so that closure can be completed.

III. SUMMARY OF REMEDIAL ACTIVITES (Since HRC Pilot Test Summary Report)

Through a process of alternating the operation of extraction wells and addition extraction wells beyond the number called for in the ROD, the 2-PHASE Extraction system removed a substantial amount of contaminants and achieved substantial reductions in groundwater concentrations across the majority of the extraction area. In 1998, the NYSDEC agreed with Bunzl/H&A's assertion that the 2-PHASE system appeared to have reached the limit of its effectiveness toward attaining the remedial goals for the site. Elevated concentrations (+1 ppm) of chlorinated solvents did remain in a "core area" in the vicinity of the former degreasing pit. According to the ROD, if groundwater standards could not be achieved with the 2-PHASE, a focused feasibility study (FFS) would be performed. Recognizing that 2-PHASE Extraction is an aggressive remediation technology but had not achieved groundwater standards in the core area, and as an alternative to this FFS, NYSDEC agreed that a shutdown of the 2-PHASE system and implementation of HRC (as an innovative/emerging technology) would provide a better basis for final closure of the site.

On 25 – 27 August 1998, approximately 625 pounds of HRC was installed via direct-push injection methods into the aquifer in the "core area" (HRC Pilot Test Summary Report). As discussed in the HRC Pilot Test Summary Report, a decrease in concentrations of the parent compound (TCE) was observed coupled with increases in chlorinated daughter compounds. Overall, an approximately 42% reduction in total chlorinated solvent mass was realized in the source area from the implementation of the HRC, see Figure 3. Inorganic analyses, field parameters and volatile acid analyses (HRC components) showed positive indications of chlorinated solvent biodegradation . Results of soil sampling also indicated decreasing concentrations of chlorinated solvents adsorbed to the soils, see Table 3.

Since the HRC Pilot Test Summary Report, four groundwater sampling events have occurred. The data from these events support the continued degradation of the chlorinated solvents in the source area. The analytical data from these events are summarized in Tables 2-5.

The 2-PHASE ™ system was decommissioned and removed from the site in June 1999. As requested by the NYSDEC, the extraction blower process piping in the core-area remained on-site in the event groundwater concentrations exceeded allowable limits. The sump pump continues to dewater the sub-grade former degreasing pit to allow sampling of the wells in the pit. Water from the sump is carbon treated, sampled (normally obtained during quarterly groundwater sampling events) and discharged into the local POTW.

Twenty-six formerly monitored site wells outside the core-area were decommissioned with the associated process piping on 1-4 November 1999. The HRC program wells and associated piping in the core-area were not removed. These wells, in addition to the remainder of the process piping and 2-PHASE equipment, will be decommissioned once reclassification approval is received from the NYSDEC.

IV. HRC TEST ANALYTICAL RESULTS - OVERALL SUMMARY

Overall, the groundwater analytical results show that the HRC is promoting degradation of the source contaminant (trichloroethene) to its breakdown components and reducing the overall mass of contaminants in the core area. The following sections provide an interpretive summary of the analytical results for the chlorinated volatile organic compound (CVOC), HRC component, inorganic compounds, and field parameters respectively. Appendix A contains an updates summary of analytical results containing data that was obtained after the HRC Pilot Test Summary Report was submitted.

Tables 2-5 contain a summary of the analytical and field parameter results for this site's field application. The following trends were observed:

- Decreases in TCE concentrations have occurred in all of the seven wells in the test area. Well MW-302 decreased to non-detect from 1.1 mg/L at the start of the test in August 1998. Two wells, VE-3 and OW-201-S, had significant decreases from 3.5 mg/L and 2.4 mg/L to 0.021 mg/L and 0.058 mg/L respectively. Wells VE-1 and MW-401, with the highest TCE starting concentrations, decreased steadily throughout the Pilot Test. In particular, well VE-1 decreased from 26 mg/L to 1.1 mg/L. Wells VE-13 and MW-301 both decreased to non-detect during the testing period with a slight increase during the last sampling event. These wells are in the source area and an increase in TCE is likely due to seasonal water level changes.

- Decreases in 1,2-DCE concentrations were observed in all but two wells in the test area. Two wells, MW-301 and MW-302, increased in 1,2-DCE concentration but decreased significantly in TCE concentration. These two wells are located within the area that had the highest concentration of TCE. Many wells exhibited increases in DCE concentrations during the HRC Test, as could be expected due to the DCE being produced through degradation of the TCE.

- Three wells had detections of vinyl chloride (VE-13 - 0.031 mg/L, MW-301 - 0.58 mg/L, and MW-302 – 2.9 mg/L) during the last sampling event. This can be expected as the DCE degrades – site trends have shown vinyl chloride being produced and then degrading completely either to ethene (anaerobically) or to CO_2 (aerobically) Vinyl chloride was detected in six wells during the Pilot Test, with concentrations at three wells decreasing to non-detect. Concentrations in MW-302 have fluctuated throughout the Pilot Test, ranging from 8.8 mg/L to non-detect to 2.9 mg/L. It appears that degradation is continuing in the vicinity of the degreaser pit. In the monitoring events where vinyl chloride has been generated and detected, it has dropped significantly in subsequent events, with levels in some wells decreasing to non-detect.

- Ethene was detected in wells VE-13, MW-301, MW-302 and MW-401 during the Pilot Test. Ethene was detected in three wells (VE-13 - 0.029 mg/L, MW-301 –

0.258 mg/L and MW-302 - 0.057 mg/L) during the last sampling event. Production of ethene is shows that the dechlorination process is proceeding through completion.

- Methane was detected in six wells during the last sampling event. These wells have shown a gradual increase in methane throughout the Pilot Test. Well OW-201-S had the highest concentration of methane during the Pilot Test (6.97 mg/L) decreasing to non-detect during the last sampling event. Methane is an indicator that anerobic conditions are being produced and maintained.

- Well MW-301 displayed significant levels of acetic acid and propionic acid (volatile acids) throughout the Pilot Test. The remainder of the wells displayed low detections of volatile acids during the Pilot Test but all have decreased to non-detect. These acids are breakdown products of the HRC and indicate liberation of hydrogen into the aquifer. The hydrogen is the electron donor for the reductive dechlorination (degradation) process.

- Results of inorganic compound analyses also indicate generation and maintenance of anaerobic conditions produced by the HRC installation throughout the majority of the HRC test. Recent results of these parameters, in conjunction with the volatile acid results above, indicate HRC is nearing the limit of its activity. For example, sulfate concentrations have rebounded to near pre-test conditions and volatile acids are non-detect except in one well.

- The field parameter results corroborate well with the results of VOC, acids, and inorganic analyses indicating anaerobic conditions were enhanced and HRC is nearing the limit of its activity.

- Figure 3 is a chart of the mass of chlorinated VOCs in the source area. This chart was prepared by Regenesis (manufacturer of HRC) by kriging (contouring) the chlorinated solvent concentrations in the source area at various sampling events. As seen in this figure, the total TCE mass decreased approximately 65% during the HRC test from 625 grams to 222 grams. The total VOC mass decreased approximately 42% during the HRC test from 668 grams to 394 grams.

V. CONCLUSIONS

Based on the factors summarized in this Closure Report Addendum, the performance of the 2-PHASE Extraction (Remediation Closure Report, dated 29 January 1999), and the positive results of the HRC Pilot Test (Summary Report, dated 19 March 1999), the remedial objectives identified by the RAP/ROD have been met for both soil and groundwater. The groundwater and soil residuals remaining at the site are below the values determined during the RI/FS process as being acceptable for site closure.

Reclassification of this site to a Class 5, as described in Part 375, and approval for remediation closure is requested. We respectfully request a response from the NYSDEC regarding this reclassification and closure request by 15 June 2000. Please contact us as soon as possible if that schedule will pose any difficulty.

Please do not hesitate to call if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Kellie L. Gregoire
Chemist

Susan L. Boyle
Senior Engineer

Vincent B. Dick
Vice-President

Table 1 - Site Activity Summary
Table 2 - Volatile Organics and Dissolved Gasses Summary
Table 3 - Soil Analytical Summary
Table 4 - Inorganics and HRC Component Summary
Table 5 - Field Parameter Summary

Figure 1 - Site Well Locations, Closure Report
Figure 2 - Extraction Area Well Locations, Closure Report
Figure 3 - VOC Mass Reduction from HRC
Appendix A – Correspondence

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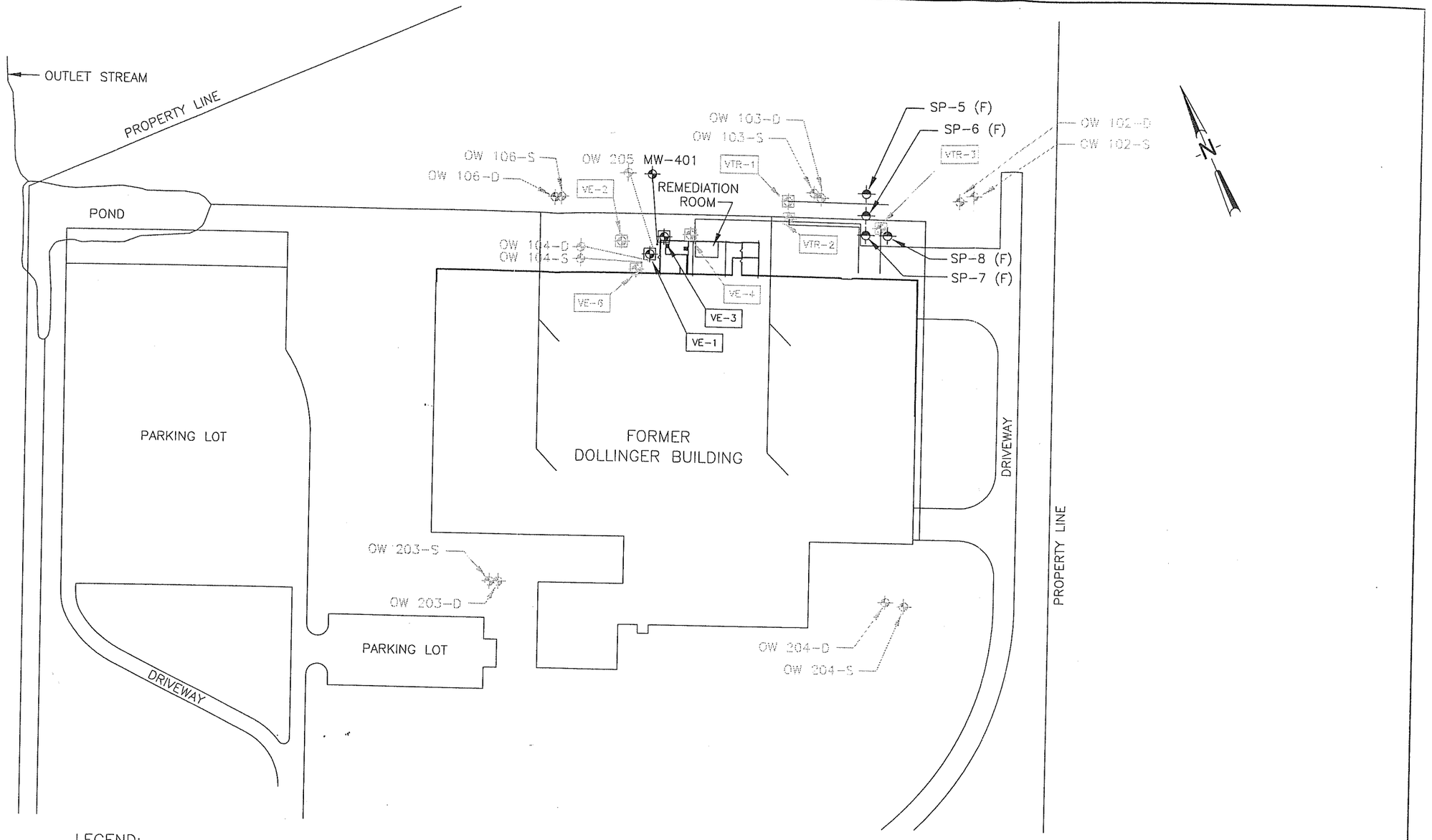

LEGEND:

VE-X	VACUUM EXTRACTION WELL/ TRENCH
SP-X (F)	SHIELD POINT
OW 20X-X	MONITORING WELL
VE-X / VTR-X	ON-LINE VACUUM EXTRACTION WELL/ TRENCH
	ABANDONED 1-4 NOVEMBER 1999

0 100 200
SCALE IN FEET

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FORMER DOLLINGER BUILDING
BRIGHTON, NEW YORK

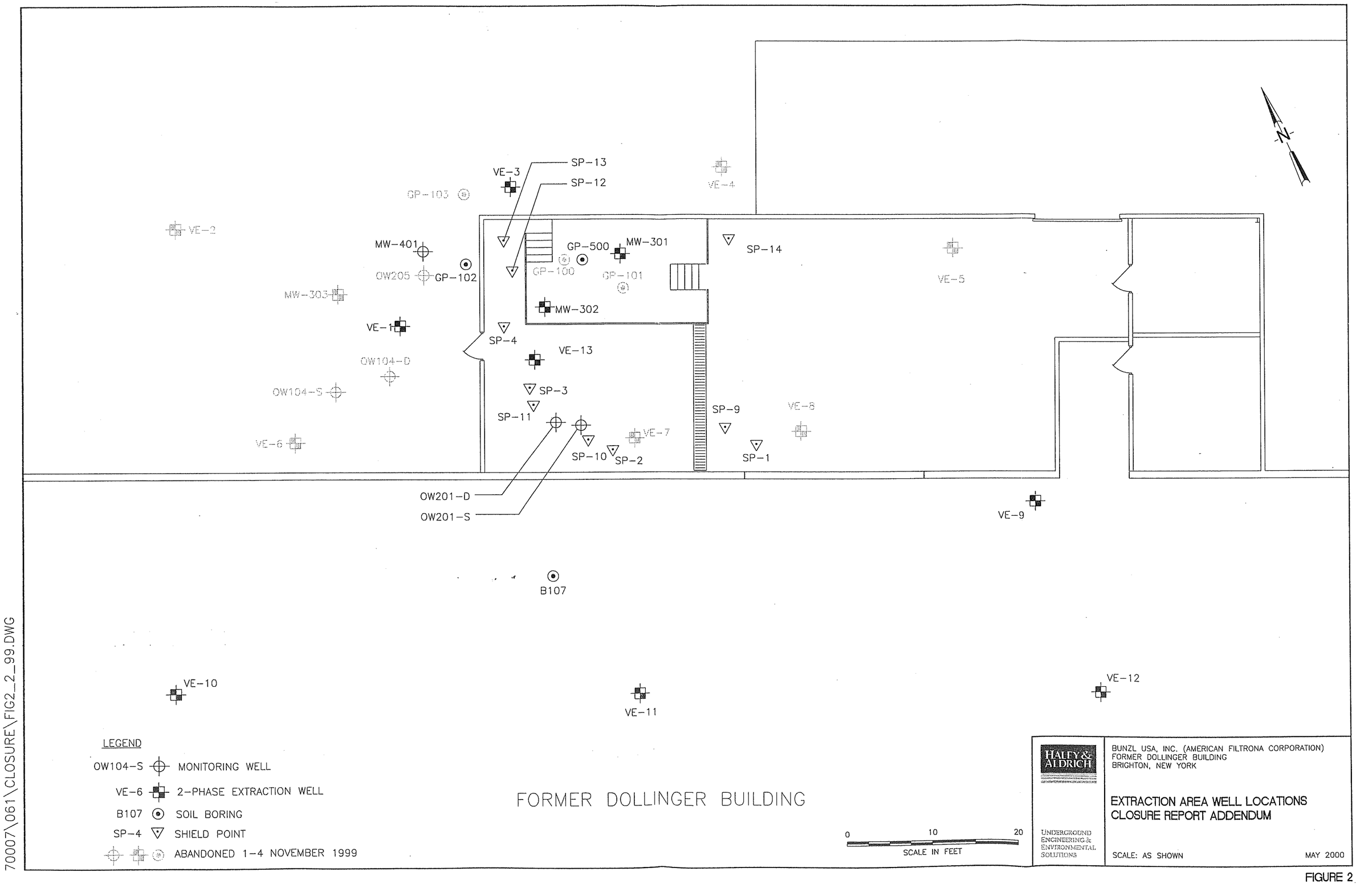
SITE WELL LOCATIONS
CLOSURE REPORT ADDENDUM

SCALE: AS SHOWN

MAY 2000

FIGURE 1

70007\061\CLOSURE\FIG1_2_99.DWG



70007\061\CLOSURE\FIG2_2_99.DWG

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EXTRACTION AREA WELL LOCATIONS CLOSURE REPORT ADDENDUM

SCALE: AS SHOWN

MAY 2000

FIGURE 2

Figure 3
VOC Mass Reduction from HRC

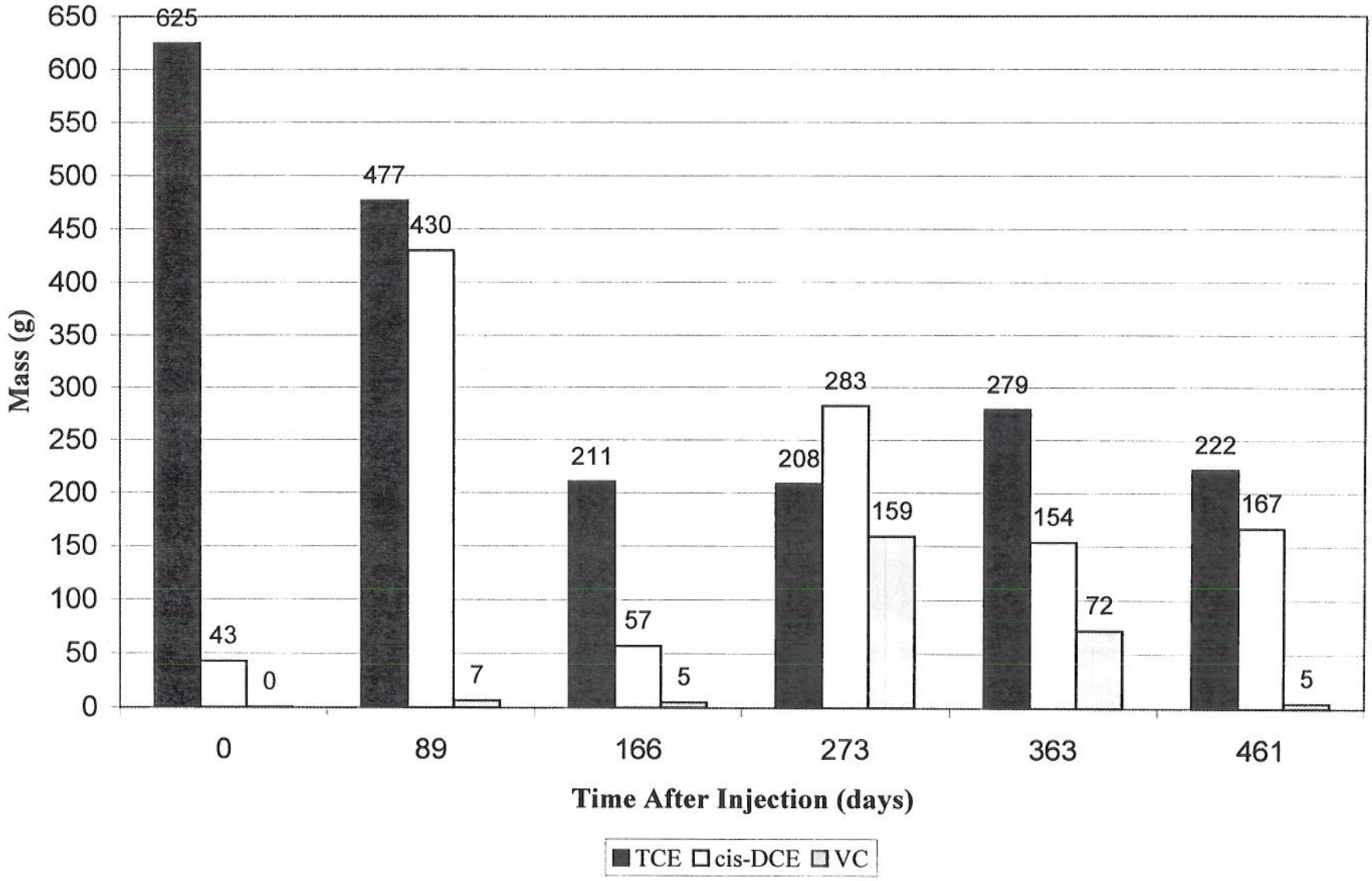
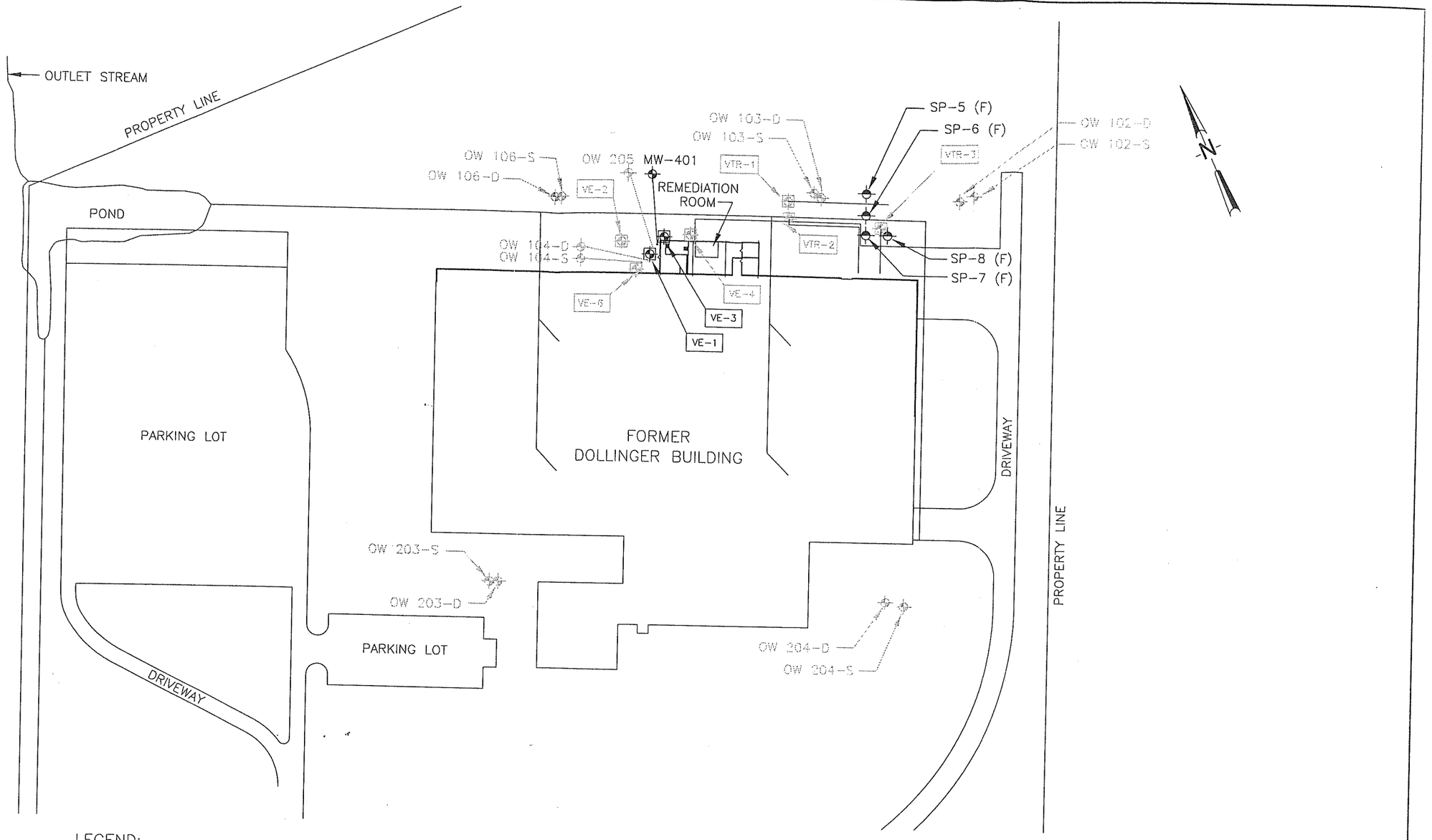


TABLE 1
DOLLINGER CLOSURE ADDENDUM
SITE ACTIVITY SUMMARY

Media Affected	Remedial Actions	Date Performed	Approximate Quantity	Comments
Pond Sediments	Excavation	28 December 1993 - 6 January 1994	237 cu yd	Disposed at Model City Landfill
Shallow Surface Soil		21 December 1993 12 January 1994	8 cu yd 17 cu yd	Disposed at Model City Landfill
Groundwater Migration Control	Cement-Bentonite Collars	13-20 December 1993	4 Collars	Confirmatory Samples April-1994 May-1994 October-1994
Groundwater Soil	2-Phase Extraction	May 1994 - July 1998	Total Recovered VOC 175 lbs. Groundwater Extracted 647000 gal. System Operating Hours 29412.81	See Cumulative Mass Removal Figure 3
Groundwater	HRC Installation	25-27 August 1998	TCE Mass Reduction in Core Source Area of 65% Total VOC Mass Reduction in Core Source Area of 42%	Monitoring Samples November-1998 February-1999 May-1999 August-1999 November-1999 March-2000
Groundwater	Well Decommission	1-4 November 1999	26 Wells	



LEGEND:

VE-X	VACUUM EXTRACTION WELL/ TRENCH
SP-X (F)	SHIELD POINT
OW 20X-X	MONITORING WELL
VE-X / VTR-X	ON-LINE VACUUM EXTRACTION WELL/ TRENCH
	ABANDONED 1-4 NOVEMBER 1999

0 100 200
SCALE IN FEET

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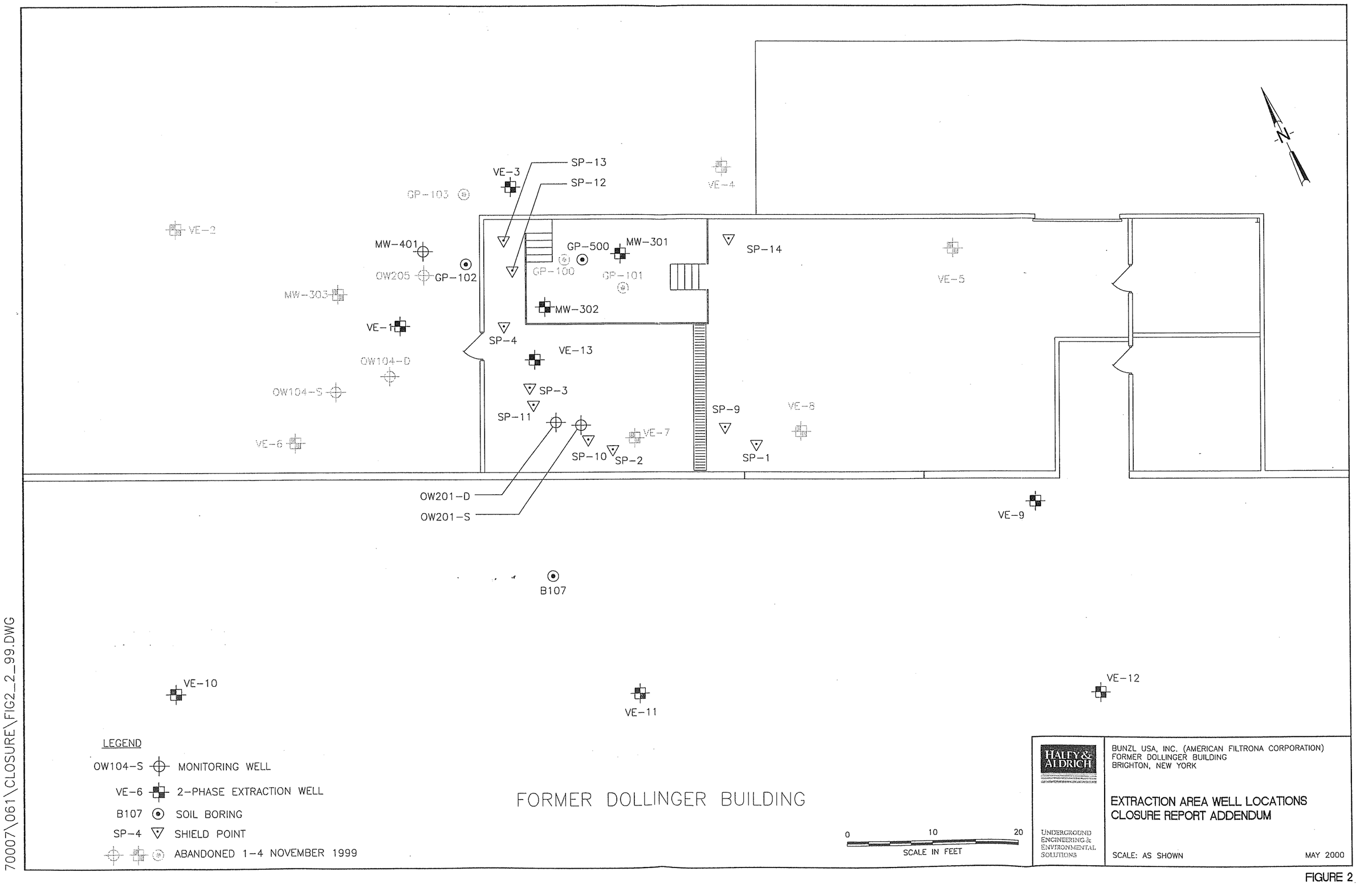
SITE WELL LOCATIONS
CLOSURE REPORT ADDENDUM

SCALE: AS SHOWN

MAY 2000

FIGURE 1

70007\061\CLOSURE\FIG1_2_99.DWG



70007\061\CLOSURE\FIG2_2_99.DWG

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BRIGHTON, NEW YORK

EXTRACTION AREA WELL LOCATIONS CLOSURE REPORT ADDENDUM

SCALE: AS SHOWN

MAY 2000

FIGURE 2

TABLE 2
DOLLINGER CLOSURE ADDENDUM
VOLATILE ORGANICS AND
DISSOLVED GASES SUMMARY

Sample ID	VE-1								VE-3						
Compound	07/23/1998	DEC Split 07/23/1998	11/23/1998	02/08/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000	07/23/1998	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000
VOLATILE ORGANICS															
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	**0.003J**	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**1.0U**	**0.86J**	**1.3**	**0.58**	**0.61**	**0.72**	**0.26**	**0.12**	**0.34**	NO RECOVERY	**0.021**	**1.4**	**0.646**	**0.22**	**0.014**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	**1.0J**	**0.4J**	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
Trichloroethene	**26**	**25**	**14**	**11**	**8.6**	**13**	**4.7**	**1.1**	**3.5**	NO RECOVERY	**0.03**	**3.5**	**1.6**	**0.82**	**0.021**
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	**0.02**	**0.0069**	ND	ND
m+p-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO RECOVERY	ND	ND	ND	ND	ND
DISSOLVED GASES															
Methane	ND	NA	ND	ND	ND	ND	ND	**0.061**	ND	ND	**0.0045**	ND	ND	ND	**0.026**
Ethane	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All values expressed in mg/L (ppm).
ND - Indicates Not Detected
NA - Indicates Not Analyzed

TABLE 2
DOLLINGER CLOSURE ADDENDUM
VOLATILE ORGANICS AND
DISSOLVED GASES SUMMARY

Sample ID	VE-13								MW-301							
Compound	07/23/1998	DEC Split 07/23/1998	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000	07/23/1998	DEC Split 07/23/1998	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000
VOLATILE ORGANICS																
Acetone	ND	ND	ND	ND	0.019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	**0.12**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	**0.002J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**0.25**	**0.24**	**1.7**	**0.034**	**0.39**	**0.063**	**0.028**	**0.044**	**0.26**	**0.26**	**6.9**	**ND**	**8.9**	**1.5**	**1.8**	**2.4**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	**0.002J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**0.68**	**0.7**	**ND**	**0.0066**	**0.095**	**0.022**	**0.0081**	**0.013**	**2.8**	**2.8**	**3.1**	**ND**	**0.61**	**1**	**4.3**	**0.68**
Vinyl Chloride	ND	ND	**0.84**	**0.024**	**0.17**	**0.048**	ND	**0.031**	ND	ND	ND	**0.14**	**7.2**	**0.96**	**0.19**	**0.58**
m+p-Xylene	ND	ND	ND	ND	**0.002J**	ND	ND	ND	ND	ND	ND	ND	ND,	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DISSOLVED GASES																
Methane	ND	NA	ND	**0.439**	**1.58**	**0.451**	**1.27**	**1.27**	ND	NA	ND	**0.053**	**0.039**	ND	**0.315**	**0.957**
Ethane	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Ethene	ND	NA	ND	**0.02**	**0.065**	ND	**0.073**	**0.029**	ND	NA	ND	ND	**0.042**	ND	**0.406**	**0.258**

All values expressed in mg/L (ppm).
ND - Indicates Not Detected
NA - Indicates Not Analyzed

TABLE 2
DOLLINGER CLOSURE ADDENDUM
VOLATILE ORGANICS AND
DISSOLVED GASES SUMMARY

Sample ID	MW-302								OW-201-S							
Compound	07/23/1998	DEC Split 07/23/1998	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000	07/23/1998	DEC Split 07/23/1998	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000
VOLATILE ORGANICS																
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**0.18**	**0.16**	**6.2**	**2.4**	**11**	**12**	**18**	**6.5**	**0.42**	**0.41**	**0.11**	**0.036**	**0.43**	**0.28**	**0.25**	**0.029**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.008J**	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**1.1**	**1.1**	**0.34**	**ND**	**0.17J**	**0.32**	ND	ND	**2.4**	**2.2**	**0.35**	**0.083**	**1.8**	**0.37**	**1.2**	**0.058**
Vinyl Chloride	ND	ND	ND	**0.21**	**3.9**	**8.8**	**ND**	**2.9**	ND	ND	ND	ND	ND	**0.0082**	ND	ND
m+p-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DISSOLVED GASES																
Methane	ND	NA	**2.49**	**0.504**	**0.039**	**0.116**	**0.707**	**0.748**	ND	NA	**6.97**	**0.015**	ND	ND	ND	ND
Ethane	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Ethene	ND	NA	ND	**0.013**	**0.042**	ND	**0.051**	**0.057**	ND	NA	ND	ND	ND	ND	ND	ND

All values expressed in mg/L (ppm).
ND - Indicates Not Detected
NA - Indicates Not Analyzed

TABLE 2
DOLLINGER CLOSURE ADDENDUM
VOLATILE ORGANICS AND
DISSOLVED GASES SUMMARY

Sample ID	MW-401					
Compound	11/23/1998	02/09/1999	05/25/1999	08/24/1999	11/30/1999	03/28/2000
VOLATILE ORGANICS						
Acetone	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**9.9**	**5.8**	**7.8**	**4.9**	**3.2**	**1.0**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
Trichloroethene	**12**	**9.3**	**8.4**	**6.9**	**0.86**	**3.9**
Vinyl Chloride	ND	ND	ND	**0.26**	ND	ND
m+p-Xylene	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND
DISSOLVED GASES						
Methane	ND	ND	**0.547**	**0.071**	ND	**0.031**
Ethane	ND	ND	ND	ND	ND	ND
Ethene	ND	ND	**0.018**	ND	ND	ND

All values expressed in mg/L (ppm).
ND - Indicates Not Detected
NA - Indicates Not Analyzed

TABLE 3
DOLLINGER CLOSURE ADDENDUM
SOIL ANALYTICAL SUMMARY

Sample Location	Depth (in feet)	Date	Soil Sampling Analytical Results (mg/kg Dry Wt.)						
			1,2-DCE	TCE	PCE	Methylene Chloride	Toluene	Ethyl Benzene	Total Xylene (o,m,p)
GS-A8*	4-6	8/15/1991	ND	51	0.23J	NA	2.5	8.1	50
VE-1	2-4	8/12/1996	ND	0.0083	0.052	ND	ND	ND	0.0178
	2.5-3.5	2/7/1997	ND	0.0028	ND	ND	ND	ND	ND
VE-4	10-12	2/23/1994	ND	21	ND	1.7 B	ND	ND	ND
	11-12	1/2/1996	ND	ND	ND	ND	ND	ND	ND
	10-12	8/12/1996	ND	0.0072	ND	ND	ND	ND	ND
VTR-2	2-4	2/23/1994	ND	ND	NA	0.0026 B	NA	0.0046	0.025
	2-3	1/2/1996	0.0059	0.017	ND	ND	ND	ND	ND
VTR-3	6.5-7.5	2/7/1997	ND	0.0015	ND	ND	ND	ND	ND
GS-B5*	4-6	8/15/1991	0.069	1.3	ND	NA	ND	ND	ND
OW-103D	4-6	8/12/1996	0.028	0.68	0.0022	ND	ND	ND	0.022
MW-301	6-8	7/21/1997	0.011	0.14	ND	ND	ND	ND	ND
MW-302	6-8	7/21/1997	ND	66	ND	ND	ND	ND	ND
	8-10	7/21/1997	ND	43	ND	ND	ND	ND	ND
	12-14	7/21/1997	ND	0.013	ND	ND	ND	ND	ND
GP-100**	10-12	1/8/1998	ND	13	ND	ND	ND	ND	ND
GP-103**	7-10	1/8/1998	ND	0.076	ND	ND	ND	ND	ND
GP-103**	12-16	1/8/1998	ND	30	ND	ND	ND	ND	ND
MW-401	12.5	8/28/1998	ND	0.22	ND	ND	ND	ND	0.0063
G-500**	10.5-11.5	2/15/1999	ND	9.3	ND	ND	ND	ND	ND

NOTES:
Concentrations presented in units of milligrams per kilogram (mg/kg) or parts per million (ppm).
* - GS-A8 and GS-B5 samples were taken during the remedial investigation in the vicinity of VE-1 and OW-103D, respectively.
** - GP-100, G-500 and GP-103 samples were taken in the vicinity of MW-302 (GP-100 and G-500) and VE-3.
Samples analyzed by Columbia Analytical Services using EPA Methods 8260.
Samples collected by Haley & Aldrich of New York personnel on dates presented.
ND - Parameter was analyzed for but not detected.
NA - Parameter was not analyzed for.
B - Compound detected in blank also.
J - Indicates an estimated value.
Compound abbreviations:
1,2-DCE = 1,2-Dichloroethene TCE = Trichloroethene PCE = Tetrachloroethene

TABLE 4
DOLLINGER CLOSURE ADDENDUM
INORGANICS AND HRC COMPONENT SUMMARY

Sample ID	VE-13							MW-301						
Analyte	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000
INORGANICS														
Iron, Dissolved	0.747	ND	1.6	2.27	NS	0.613	0.359	1.1	2.98	16.6	1.46	2.74	1.07	4.34
Iron, Total	1.83	6.92	1.66	3.6	NS	1.57	1.28	11.5	0.273	33.6	28.3	20	5.23	18.8
Manganese, Total	0.064	0.343	0.4	0.571	NS	0.259	0.191	0.47	ND	1.52	0.856	0.947	0.166	0.563
Phosphorus, Total	ND	ND	ND	ND	NS	ND	ND	ND	291	ND	10	2.8	ND	1.8
Alkalinity as CaCO3	157	174	255	283	NS	381	189	398	ND	1390	255	599	481	434
Nitrogen Ammonia	ND	ND	0.31	0.23	NS	0.38	0.24	ND	ND	1	0.27	0.35	0.24	0.34
Nitrogen, Total Kjeldahl	ND	ND	0.67	0.725	NS	1.6	0.58	ND	ND	2.3	0.924	1.19	1.13	0.93
Sulfide, Total	ND	ND	0.15	0.2	NS	0.14	ND	ND	ND	ND	ND	ND	ND	0.28
Total Organic Carbon	3.5	2	15.1	15.5	NS	2.9	3.3	2	27	1050	22.4	81.3	7.8	41.1
Chloride	9	7	4	8	NS	9	10	9	9	ND	8	21.5	13	9.0
Nitrate+Nitrite	1.1	0.9	ND	NA	NS	0.2	0.3	1	0	ND	NA	ND	ND	ND
Sulfate	76	56	10	19	NS	36	40	57	51	8.9	51	41.2	61	55
HRC COMPONENTS														
Lactic Acid (C4)	ND	ND	2	ND	NS	ND	ND	1	ND	ND	ND	ND	ND	ND
Acetic Acid (C2)	ND	ND	10	29	NS	ND	ND	ND	22	529	30	91	87	70
Propionic Acid (C3)	ND	ND	9	7	NS	ND	ND	ND	36	974	32	92	72	39
Pyruvic Acid (C3)	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyric Acid (C4)	ND	ND	ND	ND	NS	ND	ND	ND	5	138	4	6	ND	ND

Notes:

1) All results expressed in mg/L unless otherwise noted.
2) Standard Inorganic Data Qualifiers have been applied.
3) NS - Not Sampled

TABLE 4
DOLLINGER CLOSURE ADDENDUM
INORGANICS AND HRC COMPONENT SUMMARY

Sample ID	VE-1							VE-3						
Analyte	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000
INORGANICS														
Iron, Dissolved	0.384	ND	ND	ND	ND	ND	0.04	ND	ND	ND	ND	NS	ND	ND
Iron, Total	0.701	0.599	15.3	17	74	2.88	2.45	0.259	0.287	1.21	0.092	NS	1.29	2.54
Manganese, Total	0.037	0.052	0.368	0.482	2.24	0.075	0.063	ND	0.418	0.135	0.151	NS	0.074	0.093
Phosphorus, Total	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	NS	ND	ND
Alkalinity as CaCO3	284	259	314	229	566	391	207	280	356	234	279	NS	464	205
Nitrogen Ammonia	ND	ND	0.24	0.13	0.17	0.27	0.13	ND	ND	0.26	ND	NS	0.17	ND
Nitrogen, Total Kjeldahl	39	ND	0.84	0.994	2.49	0.78	0.59	ND	ND	0.52	0.72	NS	0.75	0.34
Sulfide, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Total Organic Carbon	4.4	3.1	3.4	4.1	4.2	4	3.0	2.3	5.2	3.8	2.2	NS	2.6	2.4
Chloride	9.2	9	6	6	7.1	6	6.0	5.8	6	3	4	NS	5	7.0
Nitrate+Nitrite	1.5	0.8	0.8	NA	1.2	1.8	1.1	0.5	ND	0.1	NA	NS	0.3	0.1
Sulfate	71.1	113	99	98	113	137	127	57.2	31	16	34	NS	43	15
HRC COMPONENTS														
Lactic Acid (C4)	44	4	ND	ND	ND	ND	ND	36	ND	ND	ND	NS	ND	ND
Acetic Acid (C2)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Propionic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Pyruvic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Butyric Acid (C4)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND

Notes:

1) All results expressed in mg/L unless otherwise noted.
2) Standard Inorganic Data Qualifiers have been applied.
3) NS - Not Sampled

TABLE 4
DOLLINGER CLOSURE ADDENDUM
INORGANICS AND HRC COMPONENT SUMMARY

Sample ID	MW-302							OW-201-S						
Analyte	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000	7/23/1998	11/23/1998	2/8/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000
INORGANICS														
Iron, Dissolved	5.86	4.69	0.286	0.203	1.8	0.9	1.28	1.19	ND	ND	ND	NS	0.074	ND
Iron, Total	763	0.711	3.31	18	21.1	18.1	9.24	17.7	10.4	2.44	5.28	NS	5.23	0.663
Manganese, Total	15.8	2.1	0.484	0.67	0.65	0.48	0.33	0.522	1.83	0.242	0.406	NS	0.166	0.025
Phosphorus, Total	28.8	584	1.9	2.84	5.2	5.3	2.1	1	2	ND	ND	NS	ND	ND
Alkalinity as CaCO3	1880	ND	400	340	361	381	215	400	539	220	173	NS	335	159
Nitrogen Ammonia	ND	ND	0.67	0.42	0.97	0.45	0.39	ND	ND	0.17	0.19	NS	0.2	0.16
Nitrogen, Total Kjeldahl	ND	ND	1.5	1.585	2.19	1.29	1.13	ND	ND	0.63	0.758	NS	0.8	0.66
Sulfide, Total	ND	4.2	3.0	0.6	2.4	3.0	0.19	ND	ND	ND	ND	NS	ND	ND
Total Organic Carbon	114	55	54.8	8.2	6.7	2.1	3.1	1.9	138	5.4	2.8	NS	1.3	2.0
Chloride	13	23	54	34	37.8	20.0	24	8	9	5	10	NS	9	11
Nitrate+Nitrite	1	ND	ND	NA	0.1	ND	0.2	3	ND	0.4	NA	NS	2.3	1.9
Sulfate	684	33	46	387	528.0	286.0	28	40	5	26	48	NS	43	44
HRC COMPONENTS														
Lactic Acid (C4)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Acetic Acid (C2)	ND	80	80	ND	ND	ND	ND	ND	106	3	ND	NS	ND	ND
Propionic Acid (C3)	ND	ND	20	ND	ND	ND	ND	ND	170	4	ND	NS	ND	ND
Pyruvic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND
Butyric Acid (C4)	ND	3	4	ND	ND	ND	ND	ND	10	ND	ND	NS	ND	ND

Notes:

1) All results expressed in mg/L unless otherwise noted.
2) Standard Inorganic Data Qualifiers have been applied.
3) NS - Not Sampled

TABLE 4
DOLLINGER CLOSURE ADDENDUM
INORGANICS AND HRC COMPONENT SUMMARY

Sample ID	MW-401					
Analyte	11/23/1998	2/9/1999	5/25/1999	8/24/1999	11/30/1999	3/29/2000
INORGANICS						
Iron, Dissolved	ND	**0.059**	**NA**	**1.5**	**NA**	**NA**
Iron, Total	**20.6**	**6.4**	**8.2**	**3.84**	**2.47**	**26.4**
Manganese, Total	**0.763**	**0.413**	**2.65**	**0.328**	**0.063**	**0.783**
Phosphorus, Total	ND	ND	ND	ND	ND	ND
Alkalinity as CaCO3	**428**	290	299	323	**471**	**274**
Nitrogen Ammonia	ND	0.54	0.236	0.13	0.11	**0.14**
Nitrogen, Total Kjeldahl	ND	1.4	1.05	1.16	1.02	**0.96**
Sulfide, Total	ND	ND	ND	ND	ND	ND
Total Organic Carbon	**6.5**	4	4.7	36.9	4.4	**2.9**
Chloride	**15**	2	9	8.2	6	**7.0**
Nitrate+Nitrite	ND	ND	NA	ND	ND	ND
Sulfate	66	31	73	65.2	40	**18**
HRC COMPONENTS						
Lactic Acid (C4)	ND	4	ND	ND	ND	ND
Acetic Acid (C2)	ND	ND	11	ND	ND	ND
Propionic Acid (C3)	ND	ND	5	ND	ND	ND
Pyruvic Acid (C3)	ND	ND	ND	ND	ND	ND
Butyric Acid (C4)	**ND**	ND	ND	ND	ND	ND

Notes:

1) All results expressed in mg/L unless otherwise noted.
2) Standard Inorganic Data Qualifiers have been applied.
3) NS - Not Sampled

TABLE 5
DOLLINGER CLOSURE ADDENDUM
FIELD PARAMETER SUMMARY

Sample ID	VE-1								
Reading Date	7/23/1998	8/10/1998	8/21/1998	10/1/1998	10/8/1998	11/23/1998	2/9/1999	8/23/1999	3/28/2000
pH (su)	8.0	7.8	8	8.3	8.3	NS	7.6	8.08	7.69
Eh/ORP	0.68	122	72	-19	-116	NS	32	112	NS
Temp	18	16	15.4	16.1	14.3	NS	7.9	63.3	7.9
O2 (mg/L)	3.34	1.55	1.93	0.51	2.57	NS	4.97	4.23	5.9
Sample ID	**VE-3**								
Reading Date	**7/23/1998**	**8/10/1998**	**8/21/1998**	**10/1/1998**	**10/8/1998**	**11/23/1998**	**2/9/1999**	**8/23/1999**	**3/28/2000**
pH (su)	7.9	7.9	8	8.2	8.2	NS	7.9	7.85	7.8
Eh/ORP	0.88	166	68	-8	-32	NS	104	194.5	NS
Temp	18.1	16	15.5	16.2	14.6	NS	9.6	60.4	8.7
O2 (mg/L)	4.26	1.55	1.31	0.32	2.82	NS	6.08	3.15	3.29
Sample ID	**VE-13**								
Reading Date	**7/23/1998**	**8/10/1998**	**8/21/1998**	**10/1/1998**	**10/8/1998**	**11/23/1998**	**2/9/1999**	**8/23/1999**	**3/28/2000**
pH (su)	8.5	8.3	8.5	7.8	7.7	7.3	7.5	7.47	7.41
Eh/ORP	82	85	14	18	-121	-25	63	114.3	NS
Temp	19.1	16.7	17.2	17.2	16.6	14.5	10.2	69.2	13.7
O2 (mg/L)	5.82	1.04	0.63	0.44	1.29	0.99	5.59	0.11	2.25
Sample ID	**MW-301**								
Reading Date	**7/23/1998**	**8/10/1998**	**8/21/1998**	**10/1/1998**	**10/8/1998**	**11/23/1998**	**2/9/1999**	**8/23/1999**	**3/28/2000**
pH (su)	8	8.3	8.3	8	7.5	7.7	6.7	7.39	7.54
Eh/ORP	105	75	56	30	-197	-163	115	-45.5	NS
Temp	17.4	16.2	17.5	17.2	15.1	13.5	12.4	61.5	12.4
O2 (mg/L)	6.97	6.18	6.62	0.36	0.27	0.36	3.8	3.9*	3.13
Sample ID	**MW-302**								
Reading Date	**7/23/1998**	**8/10/1998**	**8/21/1998**	**10/1/1998**	**10/8/1998**	**11/23/1998**	**2/9/1999**	**8/23/1999**	**3/28/2000**
pH (su)	8.1	8.4	8.3	6.8	7.4	7.6	7.1	7.04	7.64
Eh/ORP	116	80	54	-173	-241	-134	119	-73.6	NS
Temp	17	16	15.4	17.6	15.1	13.5	14.7	63.3	12.9
O2 (mg/L)	5.85	4.7	0.13	0.52	0.36	0.42	5.37	0.08	3.16
Sample ID	**OW-201-S**								
Reading Date	**7/23/1998**	**8/10/1998**	**8/21/1998**	**10/1/1998**	**10/8/1998**	**11/23/1998**	**2/9/1999**	**8/23/1999**	**3/28/2000**
pH (su)	8.2	NS	NS	NS	NS	8.3	7.6	7.93	7.09
Eh/ORP	103	NS	NS	NS	NS	-107	123	193.9	NS
Temp	17.6	NS	NS	NS	NS	14.4	15.3	66.2	17.1
O2 (mg/L)	5.75	NS	NS	NS	NS	1.11	6.91	0.14	7.31

APPENDIX A

CORRESPONDENCE

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, New York 14414-9519
Phone: (716) 226-2466 FAX: (716) 226-8696

John P. Cahill
Commissioner

May 5, 1999

Mark N. Ramsdell, P.E.
Haley and Aldrich of New York
189 North Water Street
Rochester, New York 14604-1151

Dear Mr. Ramsdell:

RE: Dollinger Corporation Site #828078
Report on Hydrogen Releasing Compound (HRC) Technology Pilot Test Summary
Report on Remediation Site Closure

The New York State Department of Environmental Conservation (the Department), the New York State Department of Health (NYSDOH), and the Monroe County Health Department (MCHD) have reviewed the referenced reports. The Department is very interesting in the HRC technology, and the initial monitoring results are very encouraging. We have the following comments regarding the recommendations made in the referenced reports.

1. To date, the groundwater monitoring data are encouraging; however, the Department requires additional monitoring data prior to reclassification of the site to a 5. In addition, the Department requires a certification that all reasonable and practical attempts have been made to remediate the site in accordance with the ROD. This certification must be stamped by a NYS licensed professional engineer.

2. As agreed, the 2-Phase skid may be decommissioned and demobilized from the site. The extraction blower and process piping in the "core-area" shall remain on-site during site monitoring in the event that vinyl chloride levels significantly increase.

3. Closure and decommissioning of process piping outside of the "core area" is acceptable; however, not all wells outside the "core-area" should be decommissioned at this time. Well clusters 203 and 204 and well 205 can be decommissioned. These wells have shown non-detectable levels of site-related contaminants. The Department will evaluate requests to decommission additional wells.

4. Groundwater wells within the "core-area" cannot be decommissioned after the August 1999 sampling round.

5. As agreed, the Department will be obtaining samples this month for VOC analysis. We plan to be on-site on May 25, 1999. We will need access to the wells and purge water disposal facilities. I will contact you to arrange access.

Please contact me if you have any questions. Thank you for your continued cooperation.

Sincerely,

Todd M. Caffoe, P.E.
Division of Environmental Remediation

cc: M.J. Peachey
D. Crosby
J. Harrington
D. Geraghty
R. Elliott

UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS

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HALEY & ALDRICH

MEMORANDUM

30 July 1999
File No. 70007-059

TO: NYSDEC - Division of Environmental Remediation
Todd M. Caffoe, P.E.

C: Jane Jennewein - Bunzl USA, Inc.
Rick Shaheen - Shaheen Real Estate

FROM: Haley & Aldrich of New York
Mark N. Ramsdell, P.E.

SUBJECT: 29 July 1999 - Site Meeting Discussions

This memorandum is to confirm our discussions from the site meeting on 29 July 1999 between you, Vince Dick and myself. The meeting was held to plan the remainder of activities for this project through final closure. We expect the favorable results of field sampling to continue, but actual activities may vary due to results of remaining sampling. This is to be used as a guide for budgeting purposes for our client, Bunzl USA, Inc.

The following items were discussed:

- The next sampling event is to be held at the end of August and assuming the results indicate a decrease in vinyl chloride, the remainder of equipment can be removed, and the re-classification process can proceed within the DEC. The sampling is to include only VOC analysis, unless Regenesis is interested in additional analysis.
- The re-classification process to a Class 5 does not require a petition from Haley & Aldrich. You indicated the process can start within NYSDEC and would likely be complete within a quarter. If the deed restriction for the property is in place, this would support and speed-up the re-classification process.
- In addition to the August sampling event, two more sampling events are to be assumed for budgetary purposes, regardless of the re-classification process, and pending results of the August sampling.

- Another, future round of well space and room air should be sampled and screened at our lab for vinyl chloride. This will provide additional backup to the recent results that showed non-detect levels of vinyl chloride within the building.

- All wells that are not included in the core sampling events can be pulled and grouted. This includes the exterior horizontal trenches that require pressure grout and the risers to be cut and grouted. Also, included are the interior wells within the main building and their connected piping. The remainder of the core area wells will be de-commissioned at a later date, post closure.

- The deed restriction process can be initiated with Bunzl's legal consult. You will provide example language from other NYSDEC projects.

- Discussions between Bunzl, Wilray (building owner) and Haley & Aldrich will commence as to the final condition of building after de-commissioning is complete. Haley & Aldrich recommends (with DEC agreement) that the site cap remain, the electrical service to room remain, and that the sump be grouted and/or the pit be filled to prevent future water infiltration.

- The current MCPW Sewer Use Permit will remain active through May 2000.

It was agreed that these steps would be followed to mutually continue toward completion of re-classification and closure activities by the end of this calendar year.

These are the discussion items, as we understood them, if you have any questions, comments or concerns please do not hesitate to call either myself at 716-327-5523 or Vince at -5507. Thank you for your assistance in helping this project continue toward the closure goal.

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HALEY & ALDRICH

17 November 1999
File No. 70007-059

NYSDEC - Region 8 Office
6274 East Avon-Lima Road
Avon, New York 14414-9519

Attn: Todd Caffoe, P.E.
Project Manager

Subject: Well Decommissioning
Former Dollinger Facility - Site No. 828078
Brighton, New York

Dear Todd:

As per our numerous discussions regarding the above mentioned site and the pending re-classification and subsequent closure, this letter is to document the recent well de-commissioning at the site. All wells on the site were pulled and abandoned, except the current wells being sampled for HRC monitoring. The wells that remain are VE-1, VE-3, VE-13, MW-301, MW-302, OW-201S, MW-401 and MW-201D. In addition, to these wells the four wells (VE-9, 10, 11, and 12) within the main occupied space of the building were not accessible at this time and will be de-commissioned as soon as the building owner can arrange access with the tenant.

During 1-4 November 1999, Haley & Aldrich, with the assistance of Nothnagle Drilling Inc., abandoned the series of wells listed below at the site:

OW102-S	0W106-D	VE-2	VTR-1
OW102-D	OW203-S	VE-4	VTR-2
OW103-S	OW203-D	VE-5	VTR-3
OW103-D	OW204-S	VE-6	GP-100
0W104-S	OW204-D	VE-7	GP-101
OW104-D	OW205	VE-8	GP-103
OW106-S	MW-303		

Wells were abandoned in the following manner. The protective casing was removed from each well. Using the drill rig a chain was attached around the wells protective casing and the casing was pulled up over the well riser. The well riser was then pulled with the drill rig, using a chain or web strap, approximately 2 feet. The bottom of the well or well cap was broken with drill rods to allow the well bore hole to be grouted. Grouting of the wells was

completed from the bottom of the hole to the ground surface using a tremmie line. As the well was backfilled with grout, the remaining riser and screen were removed.

In grouting the wells a Portland cement was mixed with a granular bentonite and water to achieve a flowable fill that could be pumped down each well boring. For each well, the bottom was measured after breaking the cap to ensure the boring was backfilled to its recorded depth to bottom.

The horizontal (VTR) wells were pumped full of grout to fill the horizontal screen sections. VTR-1&2 took 210 gallons of grout to backfill. VTR-3 took 40 gallons to backfill. After filling the well the vertical risers were removed by pulling them with the drill rig.

We are currently planning on performing a groundwater-sampling event by the end of November. We understand that NYSDEC would like to split samples for VOC's. We are finalizing the schedule and will inform of you of the dates that we will be in the field.

If you have any questions or comments, please do not hesitate to call us.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Mark N. Ramsdell

Mark N. Ramsdell, P.E.
Senior Engineer

Vincent B. Dick
Vice president

c: Jane Jennewein, Bunzl USA
G. Bailey, NYSDEC – Buffalo
D. Geraghty, NYSDOH
R. Shaheen, Shaheen Real Estate

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Post-it® Fax Note	7671	Date 1/20/00	# of pages ▶ 7
To Todd Caffoe		From MARK
Co./Dept. NYSDEC		Co. H&A
Phone #		Phone # 327-5525
Fax # 226-8696		Fax #

ORIGINAL TO FOLLOW IN MAIL

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

Haley & Aldrich of New York
189 North Water Street
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HALEY & ALDRICH

20 January 2000
File No. 70007-061

NYSDEC - Region 8 Office
6274 East Avon-Lima Road
Avon, New York 14414-9519

Attn: Todd Caffoe, P.E.
Project Manager

Subject: HRC Update
Former Dollinger Facility - Site No. 828078
Brighton, New York

Dear Todd:

This letter is a summary of the results from the last sampling event in November 1999 at the former Dollinger facility. An updated table summarizing all HRC treatment monitoring results is attached. In general, the data is very positive, with continuing decreases in concentrations of Trichloroethene (TCE), Dichloroethene (DCE), and Vinyl Chloride (VC). In particular, the previous high VC concentrations have all declined to non-detect (ND) or very low levels. There was only one hit of VC during the November event in well MW-302 at 0.19 ppm.

No substantial rebounding of TCE concentrations (to pre-treatment levels) is indicated by the data. Past increases in TCE may be indicating a phenomenon called "saw-toothing"- these are successive increases and decreases in concentrations, with overall downward trends, that may indicate microbe feeding/desorption cycles. Some of the "saw-toothing" may also indicate some seasonal effects. However, sampling now reflects a full 1+ year of data, and well concentrations are generally far less then a year ago at this same time. In addition, the presence of daughter products, coupled with the inorganic and volatile acid data indicates evidence of microbial reduction of VOC concentrations since injection of the HRC.

Specific comments on the seven wells sampled are as follows:

Well VE-1:

- TCE continued to decrease (down from pre-treatment concentration of 26 ppm to 4.7 ppm)
- DCE continued to decrease (from start up concentrations and concentrations resulting from TCE breakdown to DCE)
- VC remained at ND levels
- No ethene present
- Total Organic Carbon (TOC) steady (an indicator of continued HRC presence)

Well VE-3:

- TCE decreased (down from pre-treatment concentration of 3.5 ppm to 0.82 ppm)
- DCE decreased (from pre-treatment and during treatment levels)
- VC decreased to ND levels (from 0.0069 ppm in Aug)
- No ethene present
- Increase in alkalinity indicating bioactivity

Well VE-13:

- TCE decreased (pre-treatment concentration of 0.68 ppm, Aug - 0.022, Nov - 0.0081)
- DCE decreased (to pre-treatment concentration)
- VC went to ND (from concentration of 0.048 ppm in August)
- Good ethene concentrations (0.073 ppm)
- TOC decrease indicating potential depletion of HRC

Well MW-301:

- TCE increased to 4.3 ppm (greater than pre-treatment concentration of 2.8 ppm)
- DCE was steady (but lower than levels during the study resulting from TCE breakdown)
- VC decreased to 0.19 ppm (from 7.2 ppm in May and 0.96 ppm in Aug)
- Good ethene concentrations (0.406 ppm)
- Results may indicate some rebounding of TCE concentrations, but we had a previous increase to 3.1 ppm in Nov 1998 that subsequently decreased to ND before increasing to current levels-may indicate "saw-toothing" phenomenon.
- Volatile acids present at detectable levels indicating HRC still present (acetic acid at 87 ppm, propionic acid at 72 ppm)

Well MW-302:

- TCE decreased to ND (pre-treatment – 1.1 ppm, Aug – 0.32 ppm)
- DCE increased – indicating ongoing degradation (pre-treatment - 6.2 ppm, Aug - 12 ppm, Nov – 18 ppm)
- VC decreased substantially, to ND (pre-treatment – ND, Aug 8.8 ppm, Nov – ND)
- Good ethene concentrations (0.051 ppm)
- TOC decrease indicating potential depletion of HRC

Well MW-201-S:

- TCE increased but still less than pre-treatment concentration (pre-treatment – 2.4 ppm, Aug – 0.37 ppm, Nov – 1.2 ppm)
- DCE decreased
- VC went to ND (from 0.0082 ppm in August)
- No ethene present
- Results may indicate some rebounding of TCE concentrations, but we had a previous increase to 1.8 ppm in May 1999 that subsequently decreased to 0.37 ppm - may be indicating the "saw-toothing" phenomenon.
- TOC steady

Well MW-401:

- TCE decreased substantially (pre-treatment - 12 ppm, Aug - 6.9 ppm, Nov - 0.86)
- DCE decreased
- VC went to ND (Aug - 0.26 ppm)
- No ethene present
- Increase in alkalinity indicating continued bioactivity

The data show that there is still some bioactivity in the core source area. The VC concentrations have been reduced and there is an overall trend of decreasing concentrations of TCE within the core area. There have been five rounds of sampling since the HRC injection in August 1998. These results indicate that the HRC has performed as expected and that VC has not become a concern. The monitoring has gone well beyond the original period intended and has documented substantial reduction of site VOCs, certainly within the bounds envisioned for this study as an innovative treatment trial.

We recommend that the site be re-classified as we requested in the "Report on Remediation Site Closure" dated January 1999 and during our on site discussions on 29 July 1999. We look forward to your timely response to this request and are available to discuss the results if you have any questions.

Thank you for your continued assistance on this project and efforts to conclude the remediation process.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Mark N. Ramsdell

Mark N. Ramsdell, P.E.
Senior Engineer

Susan L. Boyle for

Susan L. Boyle
Senior Engineer

Vincent B. Dick
Vice President

c: Jane Jennewein, Bunzl USA
G. Bailey, NYSDEC - Buffalo
D. Geraghty, NYSDOH
R. Shaheen, Shaheen Real Estate

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TABLE 1
DOLLINGER SITE
IIRC MONITORING
VOLATILE ORGANICS AND DISSOLVED GASES SUMMARY

Sample ID	VE-1						VE-3						VE-13					
Compound	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99
VOLATILE ORGANICS																		
Acetone	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	0.019	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	0.12	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	0.0031	ND	ND	ND	ND	ND	0.002J	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**1.0U**	**1.3**	**0.58**	**0.61**	**0.72**	**0.26**	**0.34**	**[illegible]**	**0.021**	**1.4**	**0.646**	**0.22**	**0.25**	**1.7**	**0.034**	**0.39**	**0.063**	**0.028**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	0.002J	ND	ND
1,1,1-Trichloroethane	**1.0J**	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**26**	**14**	**11**	**8.6**	**13**	**4.7**	**3.5**	**[illegible]**	**0.03**	**3.5**	**1.6**	**0.82**	**0.68**	**ND**	**0.0066**	**0.095**	**0.022**	**0.0081**
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	**0.02**	**0.0069**	ND	ND	**0.84**	**0.024**	**0.17**	**0.048**	ND
m+p-Xylene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	0.002J	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	[illegible]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DISSOLVED GASES																		
Methane	ND	ND	ND	ND	ND	ND	ND	ND	**0.0045**	ND	ND	ND	ND	ND	**0.439**	**1.58**	**0.451**	**1.27**
Ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.02**	**0.065**	ND	**0.073**

All values expressed in mg/L (ppm).
ND - Indicates Not Detected

TABLE 1
DOLLINGER SITE
IIRC MONITORING
VOLATILE ORGANICS AND DISSOLVED GASES SUMMARY

Sample ID	MW-301						MW-302						OW-201-S						MW-401				
Compound	7/23/98	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99
VOLATILE ORGANICS																							
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**0.26**	**6.9**	**ND**	**8.9**	**1.5**	**1.8**	**0.18**	**6.2**	**2.4**	**11**	**12**	**18**	**0.42**	**0.11**	**0.036**	**0.43**	**0.28**	**0.25**	**9.9**	**5.8**	**7.8**	**4.9**	**3.2**
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**2.8**	**3.1**	**ND**	**0.61**	**1**	**4.3**	**1.1**	**0.34**	**ND**	**0.171**	**0.32**	**ND**	**2.4**	**0.35**	**0.083**	**1.8**	**0.37**	**1.2**	**12**	**9.3**	**8.4**	**6.9**	**0.86**
Vinyl Chloride	**ND**	**ND**	**0.14**	**7.2**	**0.96**	**0.19**	**ND**	**ND**	**0.21**	**3.9**	**8.8**	**ND**	**ND**	**ND**	**ND**	**ND**	**0.0082**	**ND**	**ND**	**ND**	**ND**	**0.26**	**ND**
m+p-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DISSOLVED GASES																							
Methane	ND	ND	**0.053**	**0.039**	ND	**0.315**	ND	**2.49**	**0.504**	**0.039**	**0.116**	**0.707**	ND	**6.97**	**0.015**	ND	ND	ND	ND	ND	**0.547**	**0.071**	ND
Ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene	ND	ND	ND	**0.042**	ND	**0.406**	ND	ND	**0.013**	**0.042**	ND	**0.051**	ND	ND	ND	ND	ND	ND	ND	ND	**0.018**	ND	ND

All values expressed in mg/L (pp
ND - Indicates Not Detected

TABLE 2
FORMER DOLLINGER FACILITY
HRC MONITORING
INORGANICS AND HRC COMPONENT SUMMARY

Sample ID	VE-1						VE-3						VE-13					
Analyte	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99
INORGANICS																		
Iron, Dissolved	0.384	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.747	ND	1.6	2.27	1.21	0.613
Iron, Total	0.701	0.599	15.3	17	74	2.88	0.259	0.287	1.21	0.092	1.66	1.29	1.83	6.92	1.66	3.6	2.08	1.57
Manganese, Total	0.037	0.052	0.368	0.482	2.24	0.075	ND	0.418	0.135	0.151	0.138	0.074	0.064	0.343	0.4	0.571	0.384	0.259
Phosphorus, Total	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alkalinity as CaCO3	284	259	314	229	566	391	280	356	234	279	315	464	157	174	255	283	248	381
Nitrogen Ammonia	ND	ND	0.24	0.13	0.17	0.27	ND	ND	0.26	ND	0.15	0.17	ND	ND	0.31	0.23	0.49	0.38
Nitrogen, Total Kjeldahl	39	ND	0.84	0.994	2.49	0.78	ND	ND	0.52	0.72	0.43	0.75	ND	ND	0.67	0.725	0.87	1.6
Sulfide, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15	0.2	ND	0.14
Total Organic Carbon	4.4	3.1	3.4	4.1	4.2	4.0	2.3	5.2	3.8	2.2	2.8	2.6	3.5	2.0	15.1	15.5	6.5	2.9
Chloride	9.2	9.0	6.0	6.0	7.1	6.0	5.8	6.0	3.0	4.0	6.5	5.0	9.2	7.0	4.0	8.0	7.5	9.0
Nitrate+Nitrite	1.5	0.8	0.8	1.0	1.2	1.8	0.5	ND	0.1	ND	0.7	0.3	1.1	0.9	ND	ND	0.2	0.2
Sulfate	71.1	113	99	98	113	137	57.2	31	16	34	58.7	43	76	56	10	19	36.5	36
HRC COMPONENTS																		
Lactic Acid (C4)	44	4	ND	ND	ND	ND	36	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND
Acetic Acid (C2)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	29	ND	ND
Propionic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	7	ND	ND
Pyruvic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyric Acid (C4)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) All results expressed in mg/L unless otherwise noted.
2) Standard Inorganic Data Qualifiers have been applied.
3) NS - Not Sampled

TABLE 2
FORMER DOLLINGER FACILITY
IIRC MONITORING
INORGANICS AND IIRC COMPONENT SUMMARY

Sample ID	MW-301						MW-302						OW-201-S						MW-401				
Analyte	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	8/24/99	7/23/98	11/23/98	2/8/99	5/25/99	8/24/99	11/30/99	11/23/98	2/9/99	5/25/99	8/24/99	11/30/99
INORGANICS																							
Iron, Dissolved	1.1	2.98	16.6	1.46	2.74	1.07	5.86	4.69	0.286	0.203	1.82	0.883	1.19	ND	ND	ND	ND	0.074	ND	0.059	NA	1.5	NA
Iron, Total	11.5	0.273	33.6	28.3	20	5.23	763	0.711	3.31	18	21.1	18.1	17.7	10.4	2.44	5.28	4.03	5.23	20.6	6.4	8.2	3.84	2.47
Manganese, Total	0.47	ND	1.52	0.856	0.947	0.166	15.8	2.1	0.484	0.67	0.654	0.48	0.522	1.83	0.242	0.406	0.188	0.166	0.763	0.413	2.65	0.328	0.063
Phosphorus, Total	ND	291	ND	10	2.8	ND	28.8	584	1.9	2.84	5.2	5.3	1.2	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alkalinity as CaCO3	398	ND	1390	255	599	481	1880	ND	400	340	361	381	400	539	220	173	185	335	428	290	299	323	471
Nitrogen Ammonia	ND	ND	1	0.27	0.35	0.24	ND	ND	0.67	0.42	0.97	0.45	ND	ND	0.17	0.19	0.22	0.2	ND	0.54	0.236	0.13	0.11
Nitrogen, Total Kjeldahl	ND	ND	2.3	0.924	1.19	1.13	ND	ND	1.5	1.585	2.19	1.29	ND	ND	0.63	0.758	0.65	0.8	ND	1.4	1.05	1.16	1.02
Sulfide, Total	ND	ND	ND	ND	ND	ND	ND	4.2	3.0	0.6	2.4	3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon	2.0	27.4	1050	22.4	81.3	7.8	114.0	55.0	54.8	8.2	6.7	2.1	1.9	138.0	5.4	2.8	2.7	1.3	6.5	4.0	4.7	36.9	4.4
Chloride	9.3	9.0	ND	8.0	21.5	13.0	13.0	23.0	54.0	34.0	37.8	20.0	8.3	9.0	5.0	10.0	9.7	9.0	15.0	2.0	9.0	8.2	6.0
Nitrate+Nitrite	1.3	0.4	ND	0.3	ND	ND	1.2	ND	ND	ND	ND	ND	2.6	ND	0.4	0.2	0.9	2.3	ND	ND	ND	ND	ND
Sulfate	57	51	8.9	51	41.2	61	684	33	46	387	528	286	40	5	26	48	40	43	66	31	73	65.2	40
IIRC COMPONENTS																							
Lactic Acid (C4)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND
Acetic Acid (C2)	ND	22	529	30	91	87	ND	80	80	ND	ND	ND	ND	106	3	ND	ND	ND	ND	ND	11	ND	ND
Propionic Acid (C3)	ND	36	974	32	92	72	ND	ND	20	ND	ND	ND	ND	170	4	ND	ND	ND	ND	ND	5	ND	ND
Pyruvic Acid (C3)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyric Acid (C4)	ND	5	138	4	6	ND	ND	3	4	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) All results expressed in m
2) Standard Inorganic Data Q
3) NS - Not Sampled

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, New York 14414-9519
Phone: (716) 226-5353 • **FAX:** (716) 226-8696
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
John P. Cahill
Commissioner

COPY

March 14, 2000

Mark N. Ramsdell, P.E.
Haley and Aldrich of New York
189 North Water Street
Rochester, New York 14604-1151

RE: **Dollinger Corporation Site #828078**
Hydrogen Releasing Compound (HRC) Update (January 2000)

Dear Mr. Ramsdell:

The Department has reviewed the data presented in the recent update report. The results of the HRC pilot study have been very encouraging. The HRC technology has significantly reduced the levels of contaminants in groundwater within the remaining "core" area beneath the building. Prior to consideration for reclassification, we are requesting one additional groundwater sampling round to verify that chloride concentrations have not rebounded. Please notify me at least 5 business days prior to sampling, so the Department can obtain split-samples. If vinyl chloride concentrations have not significantly increased, then no further monitoring will be required at this time.

Prior to site reclassification, the Remediation Site Closure Report (January 1999) should be revised to include the most recent data and the report must be certified and stamped by a NYS licensed professional engineer.

Please contact me if you have any questions. Thank you for your continued cooperation.

Sincerely,

Todd M. Caffoe, P.E.
Environmental Engineer II
Division of Environmental Remediation

cc: M.J. Peachey
G. Bailey
C. Bumb

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BE PART OF THE COUNT
ISEA PARTE DE LA CUENTA!