

Confirmatory VOC and Mine Ventilation Rate Monitoring Annual Report
DOE/WIPP 05-3309

- Any results in which the concentration at VOC-B is \geq the results at VOC-A will be defined as a sample difference of zero.
- All sample pair concentration difference results are used in calculating the annual average concentration difference for each compound.

Carbon tetrachloride, 1,1,1-tetrachloroethane, and toluene each had individual sample values reported above the respective MRLs. These results are discussed in the following section.

Table 2. Summary of VOC Monitoring Results

Compound	No. of Samples	Maximum Detected Value (ppbv)*	Annual Avg Concentration Difference (ppbv)*	Method Reporting Limits (ppbv)*	Samples > MRL*
1,1-Dichloroethene	204	0.40"J"	0	<5	0
Methylene Chloride	204	1.42"J"	0	<5	0
Chloroform	204	0.51"J"	0	<2	0
1,1,1-Trichloroethane	204	33.40	2.44	<5	20
Carbon Tetrachloride	204	51.30	4.88	<2	37
1,2-Dichloroethane	204	0.51"J"	0	<2	0
Toluene	204	13.52	0.50	<5	50
Chlorobenzene	204	0.54"J"	0	<2	0
1,1,2,2-Tetrachloroethane	204	0.60"J"	0	<2	0

*There were no exceedances of COC

3.1 Discussion of Results

For the reporting period, there were 204 samples analyzed for each of the nine target compounds, representing a total of 1,836 data points. Values given in Attachment 1 include all values reported by the analytical laboratories. Only values over the MRLs were used in comparing the concentration differences between the two sampling stations.

Reported VOC results were evaluated in two areas. The first was an evaluation of each individual sample to determine if the reported concentrations exceed the COCs listed in Table 1. The second was an evaluation of the running annual average for each compound compared to the concentrations of concern. For this reporting period, the running annual average never reached the MRLs for eight of the target compounds. Carbon tetrachloride was the only compound to have an annual average over the MRL of 4.88 ppbv. Since the data showed low levels of VOC detections, it was determined that the waste is not contributing significant concentrations of VOCs to site workers or the environment.

July 04 to June 05

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Attachment 1 - VOC Sample Results for VOC-A and VOC-B

Detection Summary

Number of Samples: 102

Compound	Detection Average	Detection Count
1,1,1-Trichloroethane	3.63	102
1,1,2,2-Tetrachloroethane	0.00	0
1,1-Dichloroethene	0.16	3
1,2-Dichloroethane	0.00	0
Carbon Tetrachloride	5.35	101
Chlorobenzene	0.00	0
Chloroform	0.21	1
Methylene Chloride	0.50	67
Toluene	1.23	96

Legend

111TA = 1,1,1-Trichloroethane
 1122T = 1,1,2,2-Tetrachloroethane
 11DCE = 1,1-Dichloroethene
 12DCA = 1,2-Dichloroethane
 CCL4 = Carbon tetrachloride
 CHBNZ = Chlorobenzene
 CHFRM = Chloroform
 DCM = Methylene chloride
 C7H8 = Toluene

Flags

B = Compound present in the laboratory blank; background subtraction not performed.
 NJ, J = Estimated value: Below MRLs, but above PQLs.
 ND, U = Compound analyzed for, but not detected above the detection limits.
 * = Normalized target VOC concentration.

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Attachment 1 - VOC Sample Results for VOC-A and VOC-B

Detection Summary

Number of Samples: 102

Compound	Detection Average	Detection Count
1,1,1-Trichloroethane	0.13	20
1,1,2,2-Tetrachloroethane	0.32	3
1,1-Dichloroethene	0.23	2
1,2-Dichloroethane	0.51	1
Carbon Tetrachloride	0.13	25
Chlorobenzene	0.30	2
Chloroform	0.44	2
Methylene Chloride	0.43	5
Toluene	0.36	56

Legend

111TA = 1,1,1-Trichloroethane
 1122T = 1,1,2,2-Tetrachloroethane
 11DCE = 1,1-Dichloroethene
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