

Appendix K

Data Usability Evaluation of Detection Limits

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Data Usability Evaluation of Detection Limits

The data usability section of this report is presented in Section 5.3. Criterion III of the data usability evaluation process addresses whether the project analytical methods and detection limits are sufficient for the intended uses of the data. As these data are intended to support future risk assessments for the Site, the laboratory method detection limits and sample quantitation limits (SQLs) for both soil and groundwater have been evaluated with respect to the comparison levels developed for the project (see Section 5.2) for the potential direct contact exposure pathways, and the groundwater to indoor air migration pathway. As the soil to groundwater pathway focuses only on detected site related chemicals (SRCs), and as many of the comparison levels for this pathway were developed specifically for this data evaluation, an evaluation of detection limits for the soil to groundwater pathway is not included here.

It should be noted that the comparison levels used in this evaluation are very conservative. While they serve as targets for laboratory analytical detection limits, in many cases there are no methods that can consistently reach such low levels. In addition, due to the heterogeneity of environmental samples and substances that can cause matrix interferences, it is common for detection limits to be elevated above the target levels. While this evaluation compares the detection limits to the conservative comparison levels, the practicality of reaching these levels in all cases needs to be considered as part of the evaluation.

1.1 Evaluation of Detection Limits in Soil

There were approximately 230 SRCs analyzed in soil samples. Of these, approximately 100 SRCs were not detected in any sample; these are listed on **Table 4-25**. These results indicate that these SRCs were not released into environmental media, or if released, have degraded over time. This evaluation of the detection limits in soil focuses on the direct contact comparison levels.

1.1.1 SRCs Never Detected in Soil

To evaluate the detection limits that were achieved in the analyses, the detection limits of the non-detect SRCs were compared to the direct contact comparison levels for soil (**Table 5-2**). **Table K-1** lists all of the SRCs not detected in soil. The SRCs are grouped by analytical method, so that it can be determined whether a particular analytical method will be required in future analyses. For each SRC, **Table K-1** presents the minimum and maximum detection limits, the soil direct contact comparison level, the frequency of exceedance (FOE) of the comparison level (number of exceedances: number of samples), and shows whether the minimum and maximum detection limits exceed the comparison level. SRCs lacking comparison levels are listed in the table footnotes. An additional 15 chemicals are listed in the footnotes, as they have no available comparison levels.

Dibenz(a,h)anthracene, analyzed by USEPA Method 8270, was the only SRC where both the minimum and maximum detection limits are greater than the comparison level. However, dibenz(a,h)anthracene was also analyzed in a subset of samples by USEPA Method 8270C SIM, which is a more sensitive analytical method, and in these samples, the detection limits did not exceed the comparison levels.

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For several SRCs, only the maximum detection limit was greater than the comparison level:

- Aldrin – in only 2 of 30 total samples were the detection limits greater than the comparison level.
- Dieldrin – in only 2 of 30 total samples were the detection limits greater than the comparison level.
- Heptachlor epoxide – in only 1 of 30 total samples was the detection limit greater than the comparison level.
- Toxaphene – in only 2 of 30 total samples were the detection limits greater than the comparison level.
- 1,2,3-Trichoropropane – in only 7 of 116 total samples were the detection limits greater than the comparison level.
- Ethylene dibromide – in only 12 of 116 total samples were the detection limits greater than the comparison level.

These results indicate that appropriate detection limits were generally achieved for the SRCs not detected in soil. Therefore, these data are considered adequate for characterization.

1.1.2 SRCs Detected in Soil but Not in All Samples

Table K-2 presents the list of SRCs that were detected in soil, but not detected in at least one sample. The frequency of nondetected results (FOND) is presented as well as minimum and maximum detection limits, and the comparison levels for direct contact with soil.

Radionuclides

For the radionuclides:

- Ra-226 was not detected in two of 116 samples with detection limits greater than the comparison level.
- Ra-228 was not detected in seven of 116 samples with detection limits greater than the comparison level.

Because these SRCs have been infrequently not detected, these data are considered adequate for characterization.

Semi-Volatile Organic Compounds (SVOCs)

For the SVOCs, four of the Polycyclic Aromatic Hydrocarbons (PAHs) were detected infrequently (in only 1 or 2 samples), but all of the detection limits for these PAHs by Method 8270 are greater than the comparison level:

- Benzo(a)anthracene
- Benzo(a)pyrene

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- Benzo(b)fluoranthene
- Indeno(1,2,3-cd)pyrene).

However, the Method 8270 SIM detection limits are all below the comparison level. PAHs were detected infrequently at the Site, and as PAHs tend to be detected as a group of compounds, the data do not suggest that there is a significant source of PAHs at the Site. However, additional sampling for PAHs will be conducted in Phase B to address potential hydrocarbon source areas.

Hexachlorobenzene detection limits were also above the comparison level for direct contact with soils. However, the detected concentrations are in most cases below the SQLs (see **Table 5-11**). It can be concluded that the laboratory was able to report a detection of hexachlorobenzene if it was present below the SQL. Therefore, there is greater confidence that hexachlorobenzene is not present when the laboratory reports a nondetected result. Moreover, the SQLs for Method 8270 SIM for hexachlorobenzene are all below the comparison level. While these data are considered adequate for characterization, additional sampling for hexachlorobenzene will be conducted in Phase B to address potential historical source areas.

Total Petroleum Hydrocarbons (TPH)

TPH as oil range organics (ORO), diesel range organics (DRO) and gasoline range organics (GRO) were infrequently detected at the Site. While the comparison level used for TPH for this evaluation is 10 mg/kg, the NDEP action level for TPH is 100 milligrams per kilogram (mg/kg), which is not a risk-based number. While all of the TPH-DRO detection limits are greater than the comparison level, they are all essentially equal to or below the NDEP action level. The same is true for TPH-ORO, though there is one result with a detection limit of 530 mg/kg. While these data are considered adequate for characterization, additional sampling for TPH-DRO will be conducted in Phase B to address potential historical source areas.

1.2 Evaluation of Detection Limits in Groundwater

There were approximately 210 SRCs analyzed in groundwater. Of these, approximately 100 SRCs were not detected in any sample; these are listed on **Table 4-26**. This evaluation of the detection limits in groundwater focuses on the direct contact comparison levels, and the comparison levels for the groundwater to indoor air migration pathway.

1.2.1 Direct Contact Comparison Level Evaluation for Groundwater

1.2.1.1 SRCs Never Detected in Groundwater

Table K-3 lists all of the SRCs that were not detected in any of the groundwater samples. To evaluate the detection limits that were achieved in the analyses, the detection limits of the non-detect SRCs were compared to the direct contact comparison levels for groundwater (**Table 5-2**). The SRCs are grouped by analytical method in **Table K-3**, so that it can be decided whether a particular analytical method will be required in future analyses. For each SRC, **Table K-3** presents the minimum and maximum detection limits, the groundwater direct contact comparison level, the FOE of the comparison level (number of exceedances : number of samples), and shows whether the minimum and maximum detection limits exceed the comparison level. SRCs lacking comparison levels are listed in the table footnotes.

There are 112 SRCs listed as not detected in any groundwater sample on **Table K-3**. An additional 15 chemicals are listed in the footnotes, as they have no available comparison levels.

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Of these, 46 have both minimum and maximum detection limits that are above the comparison level.

Volatile Organic Compounds (VOCs)

For the VOCs, there are 21 SRCs for which only the maximum detection limit is greater than the comparison level. For these SRCs, there are only two detection limits that are greater than the direct contact comparison level, and these are groundwater grab samples from two locations (SA09 and SA14). The detection limits for VOCs in these samples were elevated approximately 100-fold over the other groundwater sample results for these SRCs. The elevated VOC detection limits are due to the fact that there are high detected concentrations of benzene, chlorobenzene, and chloroform in these samples, which required sample dilution by the laboratory.

The majority of the VOCs on **Table K-3** are also not detected in soil. However, because of the occurrence of elevated concentrations of some VOCs in groundwater, additional investigation of VOCs in groundwater is proposed for Phase B.

Metals

There are a few metals (beryllium, lead and thallium) with approximately half of the detection limits greater than the groundwater comparison level. These elevated detection limits are likely due to dilutions due to matrix interferences from high total dissolved solids (TDS) (TDS ranged from 1,670 mg/L to 13,800 mg/L). Because of the high TDS, resampling would not resolve this issue, therefore, these data are considered to be adequate for characterization.

Polycyclic Aromatic Hydrocarbons (PAHs)

There are several PAHs whose detection limits are all greater than the comparison level for Method 8270. The detection limits are much lower for Method 8270 SIM, and the detection limits are at the level of the maximum contaminant level (MCL) for benzo(a)pyrene of 0.2 micrograms per liter (ug/L). Benzo(a)pyrene is considered to be the most toxic of the PAHs, but it is the only PAH with an MCL. As the detection limits under the SIM method all meet the MCL for benzo(a)pyrene, these data are considered adequate for characterization. PAHs were infrequently detected in soil at the Site. It should also be noted that the solubility of the larger PAHs is very low, so they would not necessarily be expected to be present in groundwater.

Other SRCs

Table K-4 presents a combined list of SRCs not detected in soil and/or groundwater, and indicates which were not detected in each medium. From this table and **Table K-3**, it can be shown that there are a total of 48 nondetected SRCs whose maximum detection limit exceeds the groundwater comparison level, and that were never detected in any of the soil samples. This is the case for the fuel alcohols, and the majority of the pesticides. Therefore, it is concluded that these SRCs are not likely present at the Site, and these data are considered adequate for characterization.

1.2.1.2 SRCs Detected in Groundwater but Not in All Samples

Table K-5 presents the list of SRCs that were detected in groundwater, but not detected in at least one sample. The frequency of nondetected results (FOND) is presented as well as minimum and maximum detection limits, and the comparison levels for direct contact with groundwater.

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Metals

Based on the data in **Table 4-5**, the frequency of exceedance for the following metals is low: aluminum, cadmium, chromium, iron, manganese, selenium, and thallium. These data are considered adequate for characterization.

For source area characterization reasons, arsenic, boron and vanadium are proposed for Phase B sampling in groundwater.

While the majority of the nondetected results for molybdenum and antimony are greater than the comparison level, the FOND for molybdenum is low. These elevated detection limits are likely due to dilutions due to matrix interferences from high TDS (TDS is in the range of several thousand milligrams per liter (mg/L)). Because of the high TDS, resampling would not resolve this issue, therefore, these data are considered to be adequate for characterization.

Perchlorate

Although perchlorate was not detected in only one sample, that detection limit is greater than the comparison level. Perchlorate will be included in the proposed Phase B sampling for groundwater.

Pesticides

The detection limits for the BHC pesticides are all greater than their respective comparison levels. Beta-BHC is proposed for further sampling in Phase B, and as such, all of the analytes of the Method 8081 list will be included in the analysis.

Radionuclides

Th-230 was not detected in only one sample. Therefore these data are considered adequate for characterization.

SVOCs

Only a very few SVOCs were detected in groundwater. The frequency of detection was quite low as can be seen by the high FOND levels in **Table K-5**. Based on these results, these data are considered adequate for characterization.

VOCs

The majority of the VOCs listed on **Table K-5** have at least one detection limit that is greater than the comparison level. However, because of the occurrence of elevated concentrations of some VOCs in groundwater, additional investigation of VOCs in groundwater is proposed for Phase B.

1.2.2 Groundwater to Indoor Air Migration Pathway Comparison Level Evaluation for Groundwater

1.2.2.1 SRCs Never Detected in Groundwater

Table 5-4 presents the comparison levels for the groundwater to indoor air migration pathway. This pathway is applicable only to those SRCs that are considered to be sufficiently volatile, as discussed in Section 5.0. **Table K-6** lists those non-detected SRCs that may be considered for this pathway. The SRCs are grouped by analytical method in **Table K-6**, so that it can be

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decided whether a particular analytical method will be required in future analyses. For each SRC, **Table K-6** presents the minimum and maximum detection limits, the groundwater to indoor air comparison level, the FOE of the comparison level (number of exceedances : number of samples), and shows whether the minimum and maximum detection limits exceed the comparison level. In addition, a “Notes” column identifies whether the pathway applies to the SRCs, based on USEPA guidance (USEPA 2002).

VOCs

Based on the elevated groundwater results for some VOCs, it is proposed that Phase B include soil gas sampling to more directly measure the potential effect of volatilization from the subsurface on this pathway.

Pesticides

Aldrin is the only pesticide whose detection limits are greater than the groundwater to indoor air comparison level. Although aldrin, and other pesticides and SVOCs, are included in USEPA’s guidance, there are not currently sampling and analytical methods that are practical to achieve target indoor air levels. Therefore, these data are considered to be adequate for characterization.

SVOCs

Naphthalene and hexachlorobenzene are the only two SVOCs with detection limits greater than the comparison levels. However, the detection limit for naphthalene achieved in the SIM analysis is less than the comparison level. Naphthalene will be included in the Phase B soil gas sampling as a VOC. As for pesticides above, the data for hexachlorobenzene are considered to be adequate for characterization.

1.2.2.2 SRCs Detected in Groundwater but Not in All Samples

Table K-7 presents the list of SRCs that were detected in groundwater, but not detected in at least one sample. This pathway is applicable only to those SRCs that are considered to be sufficiently volatile, as discussed in Section 5.0. **Table K-7** lists those SRCs that may be considered for this pathway. The frequency of nondetected results (FOND) is presented as well as minimum and maximum detection limits, and the comparison levels for direct contact with groundwater.

VOCs are the only SRCs on **Table K-7** with one or more detection limits greater than the comparison level. As noted above, based on the elevated groundwater results for some VOCs, it is proposed that Phase B include soil gas sampling to more directly measure the potential effect of volatilization from the subsurface on this pathway.

Table K-1
Comparison of Detection Limits of Nondetect SRCs in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Chemistry								
EPA 9012A								
Cyanide	57-12-5	mg/kg	0 : 55	5.20E-01	8.20E-01	1.20E+03	No	No
Fuel Alcohol								
SW 846 8015B FA								
Ethylene glycol	107-21-1	mg/kg	0 : 20	5.20E+01	1.42E+02	1.23E+05	No	No
Methanol	67-56-1	mg/kg	0 : 20	5.20E+01	8.20E+01	3.08E+04	No	No
Herbicide								
SW 846 8151								
2,4,5-TP (Silvex)	93-72-1	mg/kg	0 : 3	2.10E-02	2.50E-02	4.92E+02	No	No
Metals								
SW 846 6020								
Selenium	7782-49-2	mg/kg	0 : 116	1.10E-01	5.80E-01	5.11E+02	No	No
O. Pesticides								
SW 846 8141A								
CHLORPYRIFOS	2921-88-2	mg/kg	0 : 28	2.10E-02	2.60E-02	1.85E+02	No	No
Demeton-S	126-75-0	mg/kg	0 : 28	1.60E-02	1.90E-02	2.46E+00	No	No
Diazinon	333-41-5	mg/kg	0 : 28	2.30E-02	2.80E-02	5.54E+01	No	No
Dichlorvos	62-73-7	mg/kg	0 : 28	2.40E-02	3.00E-02	5.94E-01	No	No

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 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Disulfoton	298-04-4	mg/kg	0 : 28	5.00E-02	6.20E-02	2.46E+00	No	No
EPN	2104-64-5	mg/kg	0 : 28	1.40E-02	1.70E-02	6.16E-01	No	No
Ethyl Parathion	56-38-2	mg/kg	0 : 28	1.90E-02	2.30E-02	1.54E+01	No	No
FENTHION	55-38-9	mg/kg	0 : 28	3.40E-02	4.30E-02	1.50E+01	No	No
MALATHION	121-75-5	mg/kg	0 : 28	1.60E-02	1.90E-02	1.23E+03	No	No
Morphos	150-50-5	mg/kg	0 : 28	3.10E-02	3.90E-02	1.85E+00	No	No
Methyl parathion	298-00-0	mg/kg	0 : 28	2.10E-02	2.60E-02	1.54E+01	No	No
Naled	300-76-5	mg/kg	0 : 28	3.40E-02	4.30E-02	1.23E+02	No	No
Phorate	298-02-2	mg/kg	0 : 28	2.10E-02	2.60E-02	1.23E+01	No	No
RONNEL	299-84-3	mg/kg	0 : 28	1.90E-02	2.30E-02	3.08E+03	No	No
Sulfotep	3689-24-5	mg/kg	0 : 28	2.10E-02	2.60E-02	3.08E+01	No	No
PCB								
SW 846 8082								
Aroclor-1016	12674-11-2	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Aroclor-1221	11104-28-2	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Aroclor-1232	11141-16-5	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Aroclor-1242	53469-21-9	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Aroclor-1248	12672-29-6	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Aroclor-1254	11097-69-1	mg/kg	0 : 116	3.40E-02	5.50E-02	1.00E+00	No	No

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Comparison of Detection Limits of Nondetect SRCs in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Pesticide								
SW 846 8081								
Aldrin	309-00-2	mg/kg	2 : 30	1.80E-03	2.10E-02	1.00E-02	No	Yes
Alpha-BHC	319-84-6	mg/kg	0 : 30	1.80E-03	2.10E-02	3.59E-02	No	No
Alpha-chlordane	5103-71-9	mg/kg	0 : 30	1.80E-03	2.10E-02	6.47E-01	No	No
Delta-BHC	319-86-8	mg/kg	0 : 30	1.80E-03	2.10E-02	3.59E-02	No	No
Dieldrin	60-57-1	mg/kg	2 : 30	1.80E-03	2.10E-02	1.10E-02	No	Yes
Endosulfan I	959-98-8	mg/kg	0 : 30	1.80E-03	2.10E-02	3.70E+02	No	No
Endosulfan II	33213-65-9	mg/kg	0 : 30	1.80E-03	2.10E-02	3.70E+02	No	No
Endosulfan Sulfate	1031-07-8	mg/kg	0 : 30	1.80E-03	2.10E-02	3.70E+02	No	No
Endrin	72-20-8	mg/kg	0 : 30	1.80E-03	2.10E-02	1.85E+01	No	No
Endrin Ketone	53494-70-5	mg/kg	0 : 30	1.80E-03	2.10E-02	1.85E+01	No	No
Gamma-BHC (Lindane)	58-89-9	mg/kg	0 : 30	1.80E-03	2.10E-02	1.74E-01	No	No
Gamma-Chlordane	5103-74-2	mg/kg	0 : 30	1.80E-03	2.10E-02	6.47E-01	No	No
Heptachlor	76-44-8	mg/kg	0 : 30	1.80E-03	2.10E-02	3.83E-02	No	No
Heptachlor Epoxide	1024-57-3	mg/kg	1 : 30	1.80E-03	2.10E-02	1.89E-02	No	Yes
Tech-Chlordane	57-74-9	mg/kg	0 : 30	1.00E-02	1.20E-01	6.50E-01	No	No
Toxaphene	8001-35-2	mg/kg	2 : 30	5.20E-02	6.20E-01	1.57E-01	No	Yes
SVOC								
SW 846 8270								

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 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
1,4-Dioxane	123-91-1	mg/kg	0 : 116	6.90E-02	5.50E-01	1.57E+01	No	No
2-Methylnaphthalene	91-57-6	mg/kg	0 : 116	3.40E-01	5.50E-01	1.88E+01	No	No
Acenaphthene	83-32-9	mg/kg	0 : 116	3.40E-01	5.50E-01	2.92E+03	No	No
Acenaphthylene	208-96-8	mg/kg	0 : 116	3.40E-01	5.50E-01	2.92E+03	No	No
Anthracene	120-12-7	mg/kg	0 : 116	3.40E-01	5.50E-01	2.40E+04	No	No
Butyl benzyl phthalate	85-68-7	mg/kg	0 : 116	3.40E-01	5.50E-01	1.23E+04	No	No
Dibenz(a,h)anthracene	53-70-3	mg/kg	116 : 116	3.40E-01	5.50E-01	2.11E-02	Yes	Yes
Dimethyl phthalate	131-11-3	mg/kg	0 : 116	3.40E-01	5.50E-01	6.16E+05	No	No
Di-N-Octyl phthalate	117-84-0	mg/kg	0 : 116	3.40E-01	5.50E-01	2.46E+03	No	No
Fluorene	86-73-7	mg/kg	0 : 116	3.40E-01	5.50E-01	2.63E+03	No	No
Naphthalene	91-20-3	mg/kg	0 : 116	3.40E-01	5.50E-01	1.88E+01	No	No
Nitrobenzene	98-95-3	mg/kg	0 : 116	3.40E-01	5.50E-01	1.03E+01	No	No
Pyridine	110-86-1	mg/kg	0 : 116	1.70E+00	2.70E+00	6.16E+01	No	No
SW 846 8270 SIM								
2-Methylnaphthalene	91-57-6	mg/kg	0 : 13	6.90E-03	8.50E-03	1.88E+01	No	No
Acenaphthene	83-32-9	mg/kg	0 : 13	6.90E-03	8.50E-03	2.92E+03	No	No
Acenaphthylene	208-96-8	mg/kg	0 : 13	6.90E-03	8.50E-03	2.92E+03	No	No
Anthracene	120-12-7	mg/kg	0 : 13	6.90E-03	8.50E-03	2.40E+04	No	No
Dibenz(a,h)anthracene	53-70-3	mg/kg	0 : 13	6.90E-03	8.50E-03	2.11E-02	No	No
Fluorene	86-73-7	mg/kg	0 : 13	6.90E-03	8.50E-03	2.63E+03	No	No

Table K-1
Comparison of Detection Limits of Nondetect SRCs in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Naphthalene	91-20-3	mg/kg	0 : 13	6.90E-03	8.50E-03	1.88E+01	No	No
VOC								
SW 846 8260								
1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0 : 116	5.20E-03	9.10E-03	7.28E-01	No	No
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0 : 116	5.20E-03	9.10E-03	9.29E-02	No	No
1,1,2-Trichloroethane	79-00-5	mg/kg	0 : 116	5.20E-03	9.10E-03	1.61E-01	No	No
1,1-Dichloroethene	75-35-4	mg/kg	0 : 116	5.20E-03	9.10E-03	4.13E+01	No	No
1,1-Dichloropropene	563-58-6	mg/kg	0 : 116	5.20E-03	9.10E-03	1.77E-01	No	No
1,2,3-Trichloropropane	96-18-4	mg/kg	7 : 116	5.20E-03	9.10E-03	7.60E-03	No	Yes
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0 : 116	5.20E-03	9.10E-03	1.70E+01	No	No
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg	0 : 116	5.20E-03	1.20E-02	2.02E-01	No	No
1,2-Dichloropropane	78-87-5	mg/kg	0 : 116	5.20E-03	9.10E-03	7.42E-02	No	No
1,3-Dichloropropane	142-28-9	mg/kg	0 : 116	5.20E-03	9.10E-03	3.61E+01	No	No
2,2-Dichloropropane	594-20-7	mg/kg	0 : 116	5.20E-03	9.10E-03	7.42E-02	No	No
4-Chlorotoluene	106-43-4	mg/kg	0 : 116	5.20E-03	8.30E-03	5.60E+01	No	No
4-Isopropyltoluene	99-87-6	mg/kg	0 : 116	5.20E-03	9.10E-03	9.00E+01	No	No
4-Methyl-2-pentanone	108-10-1	mg/kg	0 : 116	1.00E-02	1.80E-02	4.70E+03	No	No
Bromobenzene	108-86-1	mg/kg	0 : 116	5.20E-03	8.30E-03	9.22E+00	No	No
Bromochloromethane	74-97-5	mg/kg	0 : 116	5.20E-03	8.30E-03	1.83E-01	No	No

Table K-1
Comparison of Detection Limits of Nondetect SRCs in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Bromodichloromethane	75-27-4	mg/kg	0 : 116	5.20E-03	8.30E-03	1.83E-01	No	No
Bromomethane	74-83-9	mg/kg	0 : 116	1.00E-02	1.70E-02	1.31E+00	No	No
Chloroethane	75-00-3	mg/kg	0 : 116	5.20E-03	8.30E-03	6.49E-01	No	No
Chloromethane	74-87-3	mg/kg	0 : 116	5.20E-03	8.30E-03	1.56E+01	No	No
cis-1,2-Dichloroethene	156-59-2	mg/kg	0 : 116	5.20E-03	9.10E-03	1.46E+01	No	No
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0 : 116	5.20E-03	9.10E-03	1.77E-01	No	No
Dibromochloromethane	124-48-1	mg/kg	0 : 116	5.20E-03	8.30E-03	2.55E-01	No	No
Dibromomethane	74-95-3	mg/kg	0 : 116	5.20E-03	8.30E-03	2.34E+01	No	No
Dichlorodifluoromethane	75-71-8	mg/kg	0 : 116	5.20E-03	1.20E-02	3.08E+01	No	No
Ethyl t-butyl ether	637-92-3	mg/kg	0 : 116	5.20E-03	9.10E-03	3.64E+00	No	No
Ethylbenzene	100-41-4	mg/kg	0 : 116	5.20E-03	9.10E-03	7.40E+02	No	No
Ethylene dibromide	106-93-4	mg/kg	12 : 116	5.20E-03	8.30E-03	7.30E-03	No	Yes
Isopropylbenzene	98-82-8	mg/kg	0 : 116	5.20E-03	9.10E-03	2.00E+02	No	No
Methyl tert butyl ether	1634-04-4	mg/kg	0 : 116	5.20E-03	9.10E-03	3.64E+00	No	No
N-Butylbenzene	104-51-8	mg/kg	0 : 116	5.20E-03	8.30E-03	2.19E+02	No	No
N-Propylbenzene	103-65-1	mg/kg	0 : 116	5.20E-03	9.10E-03	2.19E+02	No	No
sec-Butylbenzene	135-98-8	mg/kg	0 : 116	5.20E-03	8.30E-03	1.63E+02	No	No
Styrene	100-42-5	mg/kg	0 : 116	5.20E-03	9.10E-03	1.80E+03	No	No
tert-Butylbenzene	98-06-6	mg/kg	0 : 116	5.20E-03	8.30E-03	1.97E+02	No	No

Table K-1
Comparison of Detection Limits of Nondetect SRCs in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d,e)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
trans-1,2-Dichloroethylene	156-60-5	mg/kg	0 : 116	5.20E-03	9.10E-03	2.35E+01	No	No
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0 : 116	5.20E-03	9.10E-03	1.77E-01	No	No
Vinylchloride	75-01-4	mg/kg	0 : 116	5.20E-03	9.10E-03	7.46E-02	No	No
Xylene (Total)	1330-20-7	mg/kg	0 : 116	1.00E-02	1.80E-02	9.00E+01	No	No

Notes:

CAS - Chemical Abstracts Service number or other identifier.

SRC - Site-Related Chemical.

(a) All SRCs listed in this table were not detected in any Phase A soil sample, with the exception of naphthalene - (d).

(b) See Table 5-1 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of exceedance - Number of non-detects with detection limit greater than comparison limit:Total number of samples (sample and duplicate treated as one sample).

(d) Naphthalene was analyzed for by three methods: 8270, where it was never detected; 8270 SIM, where it was never detected; and 8260, where it was detected in one sample. The detection limits for 8260 were generally 2 orders of magnitude lower than for 8270, and similar to 8270 SIM.

(e) The following SRCs were not detected in any sample, but do not have comparison levels:

Ethanol
 Azinophos-methyl
 Bolstar
 Coumaphos
 Ethoprop
 Famphur
 Fensulphothion
 Mevinphos
 Stirphos
 Thionazin
 Tokuthion
 Trichlorinate
 2-methoxy-2-methyl-butane
 Isopropylether
 t-Butyl alcohol

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Metals								
SW 846 6020								
Antimony	7440-36-0	mg/kg	1 : 116	2.80E-01	2.80E-01	4.09E+01	No	No
Boron	7440-42-8	mg/kg	72 : 116	3.00E+00	8.57E+01	2.00E+04	No	No
Cadmium	7440-43-9	mg/kg	1 : 116	6.80E-02	6.80E-02	4.50E+01	No	No
Copper	7440-50-8	mg/kg	1 : 116	8.90E+00	8.90E+00	4.09E+03	No	No
Molybdenum	7439-98-7	mg/kg	9 : 116	2.62E-01	1.20E+00	5.11E+02	No	No
Silver	7440-22-4	mg/kg	1 : 116	1.10E-01	1.10E-01	5.11E+02	No	No
Strontium	7440-24-6	mg/kg	5 : 116	1.03E+02	1.73E+02	6.12E+04	No	No
Thallium	7440-28-0	mg/kg	67 : 116	7.30E-02	3.80E-01	6.75E+00	No	No
Tin	7440-31-5	mg/kg	4 : 116	2.50E-01	7.70E-01	6.12E+04	No	No
Uranium	7440-61-1	mg/kg	2 : 116	7.10E-01	1.80E+00	2.04E+01	No	No
Zinc	7440-66-6	mg/kg	10 : 116	1.33E+01	4.92E+01	3.10E+04	No	No
SW 846 7199								
Chromium-hexavalent	18540-29-9	mg/kg	77 : 116	2.10E-01	3.30E-01	6.41E+00	No	No
SW 846 7471								
Mercury	7439-97-6	mg/kg	90 : 116	7.00E-03	6.20E-02	3.10E+01	No	No
O. Pesticides								
SW 846 8141A								

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Demeton-O	298-03-3	mg/kg	28 : 28	4.10E-02	5.00E-02	2.46E+00	No	No
Dimethoate	60-51-5	mg/kg	26 : 28	2.30E-02	2.80E-02	1.23E+01	No	No
PCB								
SW 846 8082								
Aroclor-1260	11096-82-5	mg/kg	115 : 116	3.40E-02	5.50E-02	1.00E+00	No	No
Perchlorate								
EPA 314.0								
Perchlorate	14797-73-0	mg/kg	5 : 116	4.18E-02	2.60E-01	1.00E+01	No	No
Pesticide								
SW 846 8081								
4,4'-DDD	72-54-8	mg/kg	28 : 30	1.80E-03	2.10E-02	9.95E-01	No	No
4,4'-DDE	72-55-9	mg/kg	23 : 30	1.80E-03	2.10E-02	7.03E-01	No	No
4,4'-DDT	50-29-3	mg/kg	23 : 30	1.80E-03	2.10E-02	7.03E-01	No	No
Beta-BHC	319-85-7	mg/kg	17 : 30	1.80E-03	1.80E-02	1.26E-01	No	No
Endrin Aldehyde	7421-93-4	mg/kg	28 : 30	1.80E-03	2.10E-02	1.85E+01	No	No
Methoxychlor	72-43-5	mg/kg	27 : 30	3.40E-03	4.10E-02	3.08E+02	No	No
RAD								
HASL-300 gamma								
Ra-226	Ra-226	pci/g	2 : 116	1.06E+00	1.22E+00	2.60E-03	Yes	Yes

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Ra-228	Ra-228	pci/g	7 : 116	3.57E-01	2.21E+00	1.50E-02	Yes	Yes
HASL-300 U MOD								
URANIUM-235/236	U-235 SOL	pci/g	7 : 12	3.97E-03	2.74E-02	3.98E-02	No	No
SVOC								
SW 846 8260								
Naphthalene	91-20-3	mg/kg	115 : 116	5.20E-03	9.10E-03	1.88E+01	No	No
SW 846 8270								
Benz(a)anthracene	56-55-3	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E-01	Yes	Yes
Benzo(a)pyrene	50-32-8	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E-02	Yes	Yes
Benzo(b)fluoranthene	205-99-2	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E-01	Yes	Yes
Benzo(g,h,i)perylene	191-24-2	mg/kg	115 : 116	3.40E-01	5.50E-01	2.91E+03	No	No
Benzo(k)fluoranthene	207-08-9	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E+00	No	No
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	113 : 116	3.40E-01	5.50E-01	1.23E+01	No	No
Chrysene	218-01-9	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E+01	No	No
Diethyl phthalate	84-66-2	mg/kg	114 : 116	3.40E-01	5.50E-01	4.92E+04	No	No
Di-N-Butyl phthalate	84-74-2	mg/kg	116 : 116	3.40E-01	5.50E-01	6.16E+03	No	No
Fluoranthene	206-44-0	mg/kg	115 : 116	3.40E-01	5.50E-01	2.20E+03	No	No
Hexachlorobenzene	118-74-1	mg/kg	111 : 116	3.40E-01	5.50E-01	1.08E-01	Yes	Yes
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	115 : 116	3.40E-01	5.50E-01	2.11E-01	Yes	Yes
Phenanthrene	85-01-8	mg/kg	115 : 116	3.40E-01	5.50E-01	2.40E+04	No	No

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Pyrene	129-00-0	mg/kg	115 : 116	3.40E-01	5.50E-01	2.91E+03	No	No
SW 846 8270 SIM								
Benz(a)anthracene	56-55-3	mg/kg	12 : 13	6.90E-03	8.50E-03	2.11E-01	No	No
Benzo(a)pyrene	50-32-8	mg/kg	12 : 13	6.90E-03	8.50E-03	2.11E-02	No	No
Benzo(b)fluoranthene	205-99-2	mg/kg	12 : 13	6.90E-03	8.50E-03	2.11E-01	No	No
Benzo(g,h,i)perylene	191-24-2	mg/kg	12 : 13	6.90E-03	8.50E-03	2.91E+03	No	No
Benzo(k)fluoranthene	207-08-9	mg/kg	12 : 13	6.90E-03	8.50E-03	2.11E+00	No	No
Chrysene	218-01-9	mg/kg	11 : 13	6.90E-03	8.50E-03	2.11E+01	No	No
Fluoranthene	206-44-0	mg/kg	11 : 13	6.90E-03	8.50E-03	2.20E+03	No	No
Hexachlorobenzene	118-74-1	mg/kg	7 : 13	6.90E-03	7.70E-03	1.08E-01	No	No
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	12 : 13	6.90E-03	8.50E-03	2.11E-01	No	No
Phenanthrene	85-01-8	mg/kg	12 : 13	6.90E-03	8.50E-03	2.40E+04	No	No
Pyrene	129-00-0	mg/kg	10 : 13	6.90E-03	8.50E-03	2.91E+03	No	No
TPH								
SW 846 8015B DRO								
Oil Range Organics	TPH-MOTOR	mg/kg	81 : 87	2.60E+01	5.30E+02	1.00E+01	Yes	Yes
Total petroleum hydrocarbon-diesel	TPH-diesel	mg/kg	85 : 87	2.60E+01	1.10E+02	1.00E+01	Yes	Yes
SW 846 8015B GRO								
Total petroleum hydrocarbon-gasoline	TPH-gasoline	mg/kg	83 : 87	1.00E-01	1.60E-01	1.00E+01	No	No
VOC								

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
SW 846 8260								
1,1,1-Trichloroethane	71-55-6	mg/kg	112 : 116	5.20E-03	9.10E-03	6.90E+02	No	No
1,1-Dichloroethane	75-34-3	mg/kg	110 : 116	5.20E-03	8.30E-03	1.74E+02	No	No
1,2,3-Trichlorobenzene	87-61-6	mg/kg	108 : 116	5.20E-03	9.10E-03	2.16E+01	No	No
1,2,4-Trichlorobenzene	120-82-1	mg/kg	109 : 116	5.20E-03	9.10E-03	2.16E+01	No	No
1,2-Dichlorobenzene	95-50-1	mg/kg	106 : 116	5.20E-03	8.30E-03	4.00E+02	No	No
1,2-Dichloroethane	107-06-2	mg/kg	114 : 116	5.20E-03	8.30E-03	6.04E-02	No	No
1,3,5-Trimethylbenzene	108-67-8	mg/kg	115 : 116	5.20E-03	9.10E-03	6.97E+00	No	No
1,3-Dichlorobenzene	541-73-1	mg/kg	114 : 116	5.20E-03	8.30E-03	2.10E+02	No	No
1,4-Dichlorobenzene	106-46-7	mg/kg	88 : 116	5.20E-03	8.30E-03	7.87E-01	No	No
2-Butanone	78-93-3	mg/kg	108 : 116	1.00E-02	1.70E-02	1.13E+04	No	No
2-Chlorotoluene	95-49-8	mg/kg	115 : 116	5.20E-03	8.30E-03	5.60E+01	No	No
2-Hexanone	591-78-6	mg/kg	115 : 116	1.00E-02	1.80E-02	4.70E+03	No	No
Acetone	67-64-1	mg/kg	94 : 116	1.00E-02	2.90E-02	5.43E+03	No	No
Benzene	71-43-2	mg/kg	104 : 116	5.20E-03	8.30E-03	1.41E-01	No	No
Bromoform	75-25-2	mg/kg	115 : 116	5.20E-03	8.30E-03	2.18E+01	No	No
Carbon tetrachloride	56-23-5	mg/kg	112 : 116	5.20E-03	8.30E-03	5.49E-02	No	No
Chlorobenzene	108-90-7	mg/kg	104 : 116	5.20E-03	8.30E-03	5.31E+01	No	No
Chloroform	67-66-3	mg/kg	64 : 116	5.20E-03	7.50E-03	4.70E-02	No	No
Hexachlorobutadiene	87-68-3	mg/kg	111 : 116	5.20E-03	9.10E-03	2.21E+00	No	No

Table K-2
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Soil to Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Methylene chloride	75-09-2	mg/kg	111 : 116	5.20E-03	2.30E-02	2.05E+00	No	No
Tetrachloroethene	127-18-4	mg/kg	109 : 116	5.20E-03	9.10E-03	1.31E-01	No	No
Toluene	108-88-3	mg/kg	102 : 116	5.20E-03	9.10E-03	2.20E+02	No	No
Trichloroethene	79-01-6	mg/kg	109 : 116	5.20E-03	9.10E-03	1.15E-02	No	No
Trichlorofluoromethane	75-69-4	mg/kg	113 : 116	5.20E-03	9.10E-03	1.28E+02	No	No

Notes:

CAS - Chemical Abstracts Service number or other identifier.

SRC - Site-Related Chemical.

(a) All SRCs listed in this table were detected in at least one Phase A soil sample.

(b) See Table 5-1 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of non-detects - Number of non-detects:Total number of samples (sample and duplicate treated as one sample).

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Chemistry									
EPA 9012A									
Cyanide	57-12-5	ug/l	0 : 6	N	5.00E+00	5.00E+00	2.00E+02	No	No
Fuel Alcohol									
SW 846 8015B FA									
Ethylene glycol	107-21-1	ug/L	6 : 6	N	1.00E+04	1.00E+04	7.30E+03	Yes	Yes
Methanol	67-56-1	ug/L	6 : 6	N	5.00E+03	1.00E+04	1.82E+03	Yes	Yes
Herbicide									
SW 846 8151									
2,4,5-TP (Silvex)	93-72-1	ug/l	0 : 3	N	1.00E+00	1.00E+00	5.00E+01	No	No
Metals									
SW 846 6020									
Beryllium	7440-41-7	ug/l	11 : 26	D	8.80E-02	8.80E+00	4.00E+00	No	Yes
Iron	7439-89-6	ug/l	0 : 6	D	9.40E+00	1.88E+02	3.00E+02	No	No
Lead	7439-92-1	ug/l	11 : 26	D	4.90E-01	4.92E+01	1.50E+01	No	Yes
Silver	7440-22-4	ug/l	0 : 26	D	2.00E-01	2.03E+01	1.00E+02	No	No
Tin	7440-31-5	ug/l	0 : 26	D	2.00E-01	2.00E+01	2.19E+03	No	No

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
O. Pesticides									
SW 846 8141A									
CHLORPYRIFOS	2921-88-2	ug/l	0 : 27	N	1.00E+00	1.00E+00	1.10E+01	No	No
Demeton-O	298-03-3	ug/l	27 : 27	N	1.00E+00	1.00E+00	1.46E-01	Yes	Yes
Demeton-S	126-75-0	ug/l	27 : 27	N	1.00E+00	1.00E+00	1.46E-01	Yes	Yes
Diazinon	333-41-5	ug/l	0 : 27	N	1.00E+00	1.00E+00	3.29E+00	No	No
Dichlorvos	62-73-7	ug/l	27 : 27	N	1.00E+00	1.00E+00	2.32E-02	Yes	Yes
Dimethoate	60-51-5	ug/l	27 : 27	N	1.00E+00	1.00E+00	7.30E-01	Yes	Yes
Disulfoton	298-04-4	ug/l	27 : 27	N	5.00E-01	5.00E-01	1.46E-01	Yes	Yes
EPN	2104-64-5	ug/l	27 : 27	N	1.20E+00	1.20E+00	3.65E-02	Yes	Yes
Ethyl Parathion	56-38-2	ug/l	27 : 27	N	1.00E+00	1.00E+00	9.13E-01	Yes	Yes
FENTHION	55-38-9	ug/l	27 : 27	N	2.50E+00	2.50E+00	9.10E-01	Yes	Yes
MALATHION	121-75-5	ug/l	0 : 27	N	1.20E+00	1.20E+00	7.30E+01	No	No
Merphos	150-50-5	ug/l	27 : 27	N	5.00E+00	5.00E+00	1.10E-01	Yes	Yes
Methyl parathion	298-00-0	ug/l	27 : 27	N	4.00E+00	4.00E+00	9.13E-01	Yes	Yes
Naled	300-76-5	ug/l	0 : 27	N	1.00E+00	1.00E+00	7.30E+00	No	No
Phorate	298-02-2	ug/l	27 : 27	N	1.20E+00	1.20E+00	7.30E-01	Yes	Yes
RONNEL	299-84-3	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.83E+02	No	No
Sulfotep	3689-24-5	ug/l	0 : 27	N	1.50E+00	1.50E+00	1.83E+00	No	No

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
PCB									
SW 846 8082									
Aroclor-1016	12674-11-2	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1221	11104-28-2	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1232	11141-16-5	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1242	53469-21-9	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1248	12672-29-6	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1254	11097-69-1	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Aroclor-1260	11096-82-5	ug/l	0 : 27	N	1.00E-01	1.00E-01	5.00E-01	No	No
Pesticide									
SW 846 8081									
4,4'-DDD	72-54-8	ug/l	27 : 27	N	5.00E-02	5.00E-02	2.80E-02	Yes	Yes
4,4'-DDE	72-55-9	ug/l	27 : 27	N	5.00E-02	5.00E-02	1.98E-02	Yes	Yes
4,4'-DDT	50-29-3	ug/l	27 : 27	N	5.00E-02	5.00E-02	1.98E-02	Yes	Yes
Aldrin	309-00-2	ug/l	27 : 27	N	5.00E-02	5.00E-02	4.00E-02	Yes	Yes
Alpha-chlordane	5103-71-9	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.00E+00	No	No
Dieldrin	60-57-1	ug/l	27 : 27	N	5.00E-02	5.00E-02	4.20E-02	Yes	Yes
Endosulfan I	959-98-8	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.2E+01	No	No
Endosulfan II	33213-65-9	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.2E+01	No	No

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Endosulfan Sulfate	1031-07-8	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.2E+01	No	No
Endrin	72-20-8	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.00E+00	No	No
Endrin Aldehyde	7421-93-4	ug/l	0 : 27	N	5.00E-02	5.00E-02	1.09E+00	No	No
Endrin Ketone	53494-70-5	ug/l	0 : 27	N	5.00E-02	5.00E-02	1.09E+00	No	No
Heptachlor Epoxide	1024-57-3	ug/l	0 : 27	N	5.00E-02	5.00E-02	2.00E-01	No	No
Toxaphene	8001-35-2	ug/l	0 : 27	N	2.00E+00	2.00E+00	3.00E+00	No	No
SVOC									
SW 846 8260									
Naphthalene	91-20-3	ug/l	27 : 27	N	5.00E+00	5.00E+02	6.20E-01	Yes	Yes
SW 846 8270									
2-Methylnaphthalene	91-57-6	ug/l	27 : 27	N	1.00E+01	1.00E+01	6.20E-01	Yes	Yes
Acenaphthene	83-32-9	ug/l	0 : 27	N	1.00E+01	1.00E+01	3.65E+01	No	No
Acenaphthylene	208-96-8	ug/l	0 : 25	N	1.00E+01	1.00E+01	3.65E+01	No	No
Anthracene	120-12-7	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.83E+02	No	No
Benz(a)anthracene	56-55-3	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-03	Yes	Yes
Benzo(a)pyrene	50-32-8	ug/l	27 : 27	N	1.00E+01	1.00E+01	2.00E-01	Yes	Yes
Benzo(b)fluoranthene	205-99-2	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-03	Yes	Yes
Benzo(g,h,i)perylene	191-24-2	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.83E+01	No	No
Benzo(k)fluoranthene	207-08-9	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-02	Yes	Yes

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Butyl benzyl phthalate	85-68-7	ug/l	0 : 27	N	1.00E+01	1.00E+01	7.30E+02	No	No
Chrysene	218-01-9	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-01	Yes	Yes
Dibenz(a,h)anthracene	53-70-3	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-04	Yes	Yes
Diethyl phthalate	84-66-2	ug/l	0 : 27	N	1.00E+01	1.00E+01	2.92E+03	No	No
Dimethyl phthalate	131-11-3	ug/l	0 : 27	N	1.00E+01	1.00E+01	3.65E+04	No	No
Di-N-Octyl phthalate	117-84-0	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.46E+02	No	No
Fluoranthene	206-44-0	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.46E+02	No	No
Fluorene	86-73-7	ug/l	0 : 27	N	1.00E+01	1.00E+01	2.43E+01	No	No
Hexachlorobenzene	118-74-1	ug/l	27 : 27	N	1.00E+01	1.00E+01	1.00E+00	Yes	Yes
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	27 : 27	N	1.00E+01	1.00E+01	9.21E-03	Yes	Yes
Nitrobenzene	98-95-3	ug/l	27 : 27	N	1.00E+01	1.00E+01	3.40E-01	Yes	Yes
Phenanthrene	85-01-8	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.80E+02	No	No
Pyrene	129-00-0	ug/l	0 : 27	N	1.00E+01	1.00E+01	1.83E+01	No	No
Pyridine	110-86-1	ug/l	27 : 27	N	2.00E+01	2.00E+01	3.65E+00	Yes	Yes
SW 846 8270 SIM									
2-Methylnaphthalene	91-57-6	ug/l	0 : 3	N	2.00E-01	2.00E-01	6.20E-01	No	No
Acenaphthene	83-32-9	ug/l	0 : 3	N	2.00E-01	2.00E-01	3.65E+01	No	No
Acenaphthylene	208-96-8	ug/l	0 : 3	N	2.00E-01	2.00E-01	3.65E+01	No	No
Anthracene	120-12-7	ug/l	0 : 3	N	2.00E-01	2.00E-01	1.83E+02	No	No
Benz(a)anthracene	56-55-3	ug/l	3 : 3	N	2.00E-01	2.00E-01	9.21E-03	Yes	Yes

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Benzo(a)pyrene	50-32-8	ug/l	0 : 3	N	2.00E-01	2.00E-01	2.00E-01	No	No
Benzo(b)fluoranthene	205-99-2	ug/l	3 : 3	N	2.00E-01	2.00E-01	9.21E-03	Yes	Yes
Benzo(g,h,i)perylene	191-24-2	ug/l	0 : 3	N	2.00E-01	2.00E-01	1.83E+01	No	No
Benzo(k)fluoranthene	207-08-9	ug/l	3 : 3	N	2.00E-01	2.00E-01	9.21E-02	Yes	Yes
Chrysene	218-01-9	ug/l	0 : 3	N	2.00E-01	2.00E-01	9.21E-01	No	No
Dibenz(a,h)anthracene	53-70-3	ug/l	3 : 3	N	2.00E-01	2.00E-01	9.21E-04	Yes	Yes
Fluoranthene	206-44-0	ug/l	0 : 3	N	2.00E-01	2.60E-01	1.46E+02	No	No
Fluorene	86-73-7	ug/l	0 : 3	N	2.00E-01	2.00E-01	2.43E+01	No	No
Hexachlorobenzene	118-74-1	ug/l	0 : 3	N	2.00E-01	2.00E-01	1.00E+00	No	No
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	3 : 3	N	2.00E-01	2.00E-01	9.21E-03	Yes	Yes
Naphthalene	91-20-3	ug/l	0 : 3	N	2.00E-01	2.00E-01	6.20E-01	No	No
Phenanthrene	85-01-8	ug/l	0 : 3	N	2.00E-01	2.00E-01	1.80E+02	No	No
Pyrene	129-00-0	ug/l	0 : 3	N	2.00E-01	2.00E-01	1.83E+01	No	No
VOC									
SW 846 8260									
1,1,1,2-Tetrachloroethane	630-20-6	ug/l	27 : 27	N	5.00E+00	5.00E+02	4.32E-02	Yes	Yes
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	27 : 27	N	5.00E+00	5.00E+02	5.53E-03	Yes	Yes
1,1,2-Trichloroethane	79-00-5	ug/l	2 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
1,1-Dichloropropene	563-58-6	ug/l	27 : 27	N	5.00E+00	5.00E+02	3.96E-02	Yes	Yes

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
1,2,3-Trichloropropane	96-18-4	ug/l	27 : 27	N	5.00E+00	5.00E+02	5.60E-04	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	ug/l	27 : 27	N	5.00E+00	5.00E+02	1.23E+00	Yes	Yes
1,2-Dibromo-3-chloropropane	96-12-8	ug/l	27 : 27	N	5.00E+00	5.00E+02	2.00E-01	Yes	Yes
1,2-Dichloropropane	78-87-5	ug/l	2 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
1,3,5-Trimethylbenzene	108-67-8	ug/l	27 : 27	N	5.00E+00	5.00E+02	1.23E+00	Yes	Yes
1,3-Dichloropropane	142-28-9	ug/l	2 : 27	N	5.00E+00	5.00E+02	1.22E+01	No	Yes
2,2-Dichloropropane	594-20-7	ug/l	27 : 27	N	5.00E+00	5.00E+02	1.65E-02	Yes	Yes
2-Butanone	78-93-3	ug/l	2 : 27	N	1.00E+01	1.00E+03	6.97E+02	No	Yes
2-Chlorotoluene	95-49-8	ug/l	2 : 27	N	5.00E+00	5.00E+02	1.22E+01	No	Yes
2-Hexanone	591-78-6	ug/l	2 : 27	N	1.00E+01	1.00E+03	2.00E+02	No	Yes
4-Chlorotoluene	106-43-4	ug/l	2 : 27	N	5.00E+00	5.00E+02	1.22E+01	No	Yes
4-Isopropyltoluene	99-87-6	ug/l	2 : 27	N	5.00E+00	5.00E+02	2.06E+01	No	Yes
4-Methyl-2-pentanone	108-10-1	ug/l	2 : 27	N	1.00E+01	1.00E+03	1.99E+02	No	Yes
Acetone	67-64-1	ug/l	2 : 27	N	1.00E+01	1.00E+03	5.48E+02	No	Yes
Bromochloromethane	74-97-5	ug/l	27 : 27	N	5.00E+00	5.00E+02	1.81E-02	Yes	Yes
Chloroethane	75-00-3	ug/l	27 : 27	N	5.00E+00	5.00E+02	4.64E-01	Yes	Yes
cis-1,2-Dichloroethene	156-59-2	ug/l	2 : 27	N	5.00E+00	5.00E+02	7.00E+01	No	Yes
cis-1,3-Dichloropropene	10061-01-5	ug/l	27 : 27	N	5.00E+00	5.00E+02	3.96E-02	Yes	Yes
Dibromomethane	74-95-3	ug/l	2 : 27	N	5.00E+00	5.00E+02	6.08E+00	No	Yes
Dichlorodifluoromethane	75-71-8	ug/l	2 : 27	N	5.00E+00	5.00E+02	3.95E+01	No	Yes

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Ethyl t-butyl ether	637-92-3	ug/l	27 : 27	N	5.00E+00	5.00E+02	1.10E+00	Yes	Yes
Ethylbenzene	100-41-4	ug/l	0 : 27	N	5.00E+00	5.00E+02	7.00E+02	No	No
Ethylene dibromide	106-93-4	ug/l	27 : 27	N	5.00E+00	5.00E+02	5.00E-02	Yes	Yes
Hexachlorobutadiene	87-68-3	ug/l	27 : 27	N	5.00E+00	5.00E+02	8.62E-02	Yes	Yes
Isopropylbenzene	98-82-8	ug/l	2 : 27	N	5.00E+00	5.00E+02	6.58E+01	No	Yes
Methylene chloride	75-09-2	ug/l	2 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
N-Butylbenzene	104-51-8	ug/l	2 : 27	N	5.00E+00	5.00E+02	2.43E+01	No	Yes
N-Propylbenzene	103-65-1	ug/l	2 : 27	N	5.00E+00	5.00E+02	2.43E+01	No	Yes
sec-Butylbenzene	135-98-8	ug/l	2 : 27	N	5.00E+00	5.00E+02	2.43E+01	No	Yes
Styrene	100-42-5	ug/l	2 : 25	N	5.00E+00	5.00E+02	1.00E+02	No	Yes
tert-Butylbenzene	98-06-6	ug/l	2 : 27	N	5.00E+00	5.00E+02	2.43E+01	No	Yes
trans-1,2-Dichloroethylene	156-60-5	ug/l	2 : 27	N	5.00E+00	5.00E+02	1.00E+02	No	Yes
trans-1,3-Dichloropropene	10061-02-6	ug/l	27 : 27	N	5.00E+00	5.00E+02	3.96E-02	Yes	Yes
Vinylchloride	75-01-4	ug/l	27 : 27	N	5.00E+00	5.00E+02	2.00E+00	Yes	Yes
Xylene (Total)	1330-20-7	ug/l	0 : 27	N	1.00E+01	1.00E+03	1.00E+04	No	No

Table K-3
Comparison of Detection Limits of Nondetect Results for SRCs in Groundwater to Direct Contact Comparison Levels
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a,d)	CAS	Unit	FOE (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
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Notes:

CAS - Chemical Abstracts Service number or other identifier.

SRC - Site-Related Chemical.

D - Dissolved.

N - Not Applicable.

T - Total.

(a) All SRCs listed on this table were not detected in any Phase A groundwater sample.

(b) See Table 5-1 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of exceedance - Number of non-detects with detection limit greater than comparison limit:Total number of samples (sample and duplicate treated as one sample).

(d) The following SRCs were not detected in any sample, but do not have comparison levels:

Ethanol

Azinophos-methyl

Bolstar

Coumaphos

Ethoprop

Famphur

Fensulphothion

Mevinphos

Stirphos

Thionazin

Tokuthion

Trichlorinate

2-methoxy-2-methyl-butane

Isopropylether

t-Butyl alcohol

Table K-4
SRCs Never Detected in Soil or Groundwater
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

CAS	Analyte	Non-Detect In Soil	Non-Detect in Groundwater
630-20-6	1,1,1,2-Tetrachloroethane	X	X
79-34-5	1,1,2,2-Tetrachloroethane	X	X
79-00-5	1,1,2-Trichloroethane	X	X
75-35-4	1,1-Dichloroethene	X	
563-58-6	1,1-Dichloropropene	X	X
96-18-4	1,2,3-Trichloropropane	X	X
95-63-6	1,2,4-Trimethylbenzene	X	X
96-12-8	1,2-Dibromo-3-chloropropane	X	X
78-87-5	1,2-Dichloropropane	x	X
108-67-8	1,3,5-Trimethylbenzene		X
142-28-9	1,3-Dichloropropane	X	X
123-91-1	1,4-Dioxane	X	
594-20-7	2,2-Dichloropropane	X	X
93-72-1	2,4,5-TP (Silvex)	X	X
78-93-3	2-Butanone		X
95-49-8	2-Chlorotoluene		X
591-78-6	2-Hexanone		X
994-05-8	2-Methoxy-2-methyl-butane	X	X
91-57-6	2-Methylnaphthalene	X	X
72-54-8	4,4'-DDD		X
72-55-9	4,4'-DDE		X
50-29-3	4,4'-DDT		X
106-43-4	4-Chlorotoluene	X	X
99-87-6	4-Isopropyltoluene	X	X
108-10-1	4-Methyl-2-pentanone	X	X
83-32-9	Acenaphthene	X	X
208-96-8	Acenaphthylene	X	X
309-00-2	Aldrin	X	X
319-84-6	Alpha-BHC	X	
5103-71-9	Alpha-chlordane	X	X
120-12-7	Anthracene	X	X
12674-11-2	Aroclor-1016	X	X
11104-28-2	Aroclor-1221	X	X
11141-16-5	Aroclor-1232	X	X
53469-21-9	Aroclor-1242	X	X
12672-29-6	Aroclor-1248	X	X
11097-69-1	Aroclor-1254	X	X
11096-82-5	Aroclor-1260		X
86-50-0	Azinphos-methyl	X	X
56-55-3	Benz(a)anthracene		X
50-32-8	Benzo(a)pyrene		X
205-99-2	Benzo(b)fluoranthene		X
191-24-2	Benzo(g,h,i)perylene		X
207-08-9	Benzo(k)fluoranthene		X
7440-41-7	Beryllium		X
35400-43-2	Bolstar	X	X
108-86-1	Bromobenzene	X	
74-97-5	Bromochloromethane	X	X
75-27-4	Bromodichloromethane	X	
74-83-9	Bromomethane	X	
85-68-7	Butyl benzyl phthalate	X	X
75-00-3	Chloroethane	X	X
74-87-3	Chloromethane	X	
2921-88-2	CHLORPYRIFOS	X	X
218-01-9	Chrysene		X
156-59-2	cis-1,2-Dichloroethene	X	X
10061-01-5	cis-1,3-Dichloropropene	X	X
56-72-4	COUMAPHOS	x	X
57-12-5	Cyanide	X	X
319-86-8	Delta-BHC	X	
298-03-3	Demeton-O		X
126-75-0	Demeton-S	X	X
333-41-5	Diazinon	X	X
53-70-3	Dibenz(a,h)anthracene	X	X
124-48-1	Dibromochloromethane	X	
74-95-3	Dibromomethane	X	X

Table K-4
SRCs Never Detected in Soil or Groundwater
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

CAS	Analyte	Non-Detect In Soil	Non-Detect in Groundwater
75-71-8	Dichlorodifluoromethane	X	X
62-73-7	Dichlorvos	X	X
60-57-1	Dieldrin	X	X
84-66-2	Diethyl phthalate		X
60-51-5	Dimethoate		X
131-11-3	Dimethyl phthalate	X	X
117-84-0	Di-N-Octyl phthalate	X	X
298-04-4	Disulfoton	X	X
959-98-8	Endosulfan I	X	X
33213-65-9	Endosulfan II	X	X
1031-07-8	Endosulfan Sulfate	X	X
72-20-8	Endrin	X	X
7421-93-4	Endrin Aldehyde		X
53494-70-5	Endrin Ketone	X	X
2104-64-5	EPN	X	X
64-17-5	Ethanol	X	
13194-48-4	Ethoprop	X	X
56-38-2	Ethyl Parathion	X	X
637-92-3	Ethyl t-butyl ether	X	X
100-41-4	Ethylbenzene	X	X
106-93-4	Ethylene dibromide	X	X
107-21-1	Ethylene glycol	X	X
52-85-7	Famphur	X	X
115-90-2	Fensulfothion	X	X
55-38-9	FENTHION	X	X
206-44-0	Fluoranthene		X
86-73-7	Fluorene	X	X
58-89-9	Gamma-BHC (Lindane)	X	
5103-74-2	Gamma-Chlordane	X	
76-44-8	Heptachlor	X	
1024-57-3	Heptachlor Epoxide	X	X
118-74-1	Hexachlorobenzene		X
87-68-3	Hexachlorobutadiene		X
193-39-5	Indeno(1,2,3-cd)pyrene		X
7439-89-6	Iron		X
108-20-3	isopropyl ether	X	X
98-82-8	Isopropylbenzene	X	X
7439-92-1	Lead		X
121-75-5	MALATHION	X	X
150-50-5	Merphos	X	X
67-56-1	Methanol	X	X
75-09-2	Methylene Chloride		X
298-00-0	Methyl parathion	X	X
1634-04-4	Methyl tert butyl ether	X	
7786-34-7	MEVINPHOS	X	X
300-76-5	Naled	X	X
91-20-3	Naphthalene (a)	X	X
104-51-8	N-Butylbenzene	X	X
98-95-3	Nitrobenzene	X	X
103-65-1	N-Propylbenzene	X	X
29082-74-4	Octachlorostyrene		X
TPH-MOTOR	Oil Range Organics		X
Per Moisture	Percent moisture	X	
PH-SOLID	pH (solid)	X	
85-01-8	Phenanthrene		X
298-02-2	Phorate	X	X
129-00-0	Pyrene		X
110-86-1	Pyridine	X	X
299-84-3	RONNEL	X	X
135-98-8	sec-Butylbenzene	X	X
7782-49-2	Selenium	X	
7440-22-4	Silver		X
22248-79-9	Stirphos	X	X
100-42-5	Styrene	X	X
3689-24-5	Sulfotep	X	X
75-65-0	t-Butyl alcohol	X	X
57-74-9	Tech-Chlordane	X	X

Table K-4
SRCs Never Detected in Soil or Groundwater
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

CAS	Analyte	Non-Detect In Soil	Non-Detect in Groundwater
98-06-6	tert-Butylbenzene	X	X
Th-228 sol	Th-228 - soluble		X
Th-232 sol	Th-232 - soluble		X
7440-28-0	Thallium		X
297-97-2	Thionazin	X	X
7440-31-5	Tin		X
34643-46-4	Tokuthion	X	X
Total PCBs	TOTAL PCBs	X	X
TPH-diesel	Total petroleum hydrocarbon-diesel		X
TPH-gasoline	Total petroleum hydrocarbon-gasoline		X
8001-35-2	Toxaphene	X	X
156-60-5	trans-1,2-Dichloroethylene	X	X
10061-02-6	trans-1,3-Dichloropropene	X	X
327-98-0	TRICHLORONATE	X	X
75-01-4	Vinylchloride	X	X
1330-20-7	Xylene (Total)	X	X

Notes:
 NA - Not applicable.
 CAS - Chemical Abstract Service number or other identifier.
 SRC - Site-Related Chemical.
 (a) Naphthalene was analyzed for by three methods: 8270, where it was never detected; 8270 SIM, where it was never detected; and 8260, where it was detected in one sample. The detection limits for 8260 were generally two orders of magnitude lower than for 8270, and similar for 8270 SIM.

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Chemistry									
SW 846 9056									
Nitrate (as N)	NO3	ug/L	3 : 27	N	2.00E+03	1.00E+04	1.00E+04	No	No
Nitrite	14797-65-0	ug/L	17 : 25	N	2.00E+01	1.00E+04	1.00E+03	No	Yes
Metals									
SW 846 6020									
Aluminum	7429-90-5	ug/l	24 : 26	D	7.90E+00	7.86E+02	5.00E+01	No	Yes
Aluminum	7429-90-5	ug/l	19 : 26	T	7.90E+00	7.86E+02	5.00E+01	No	Yes
Antimony	7440-36-0	ug/l	17 : 26	D	5.00E-01	5.00E+01	6.00E+00	No	Yes
Antimony	7440-36-0	ug/l	18 : 23	T	5.00E-01	5.00E+01	6.00E+00	No	Yes
Arsenic	7440-38-2	ug/l	4 : 26	T	1.00E+02	2.00E+02	1.00E+01	Yes	Yes
Arsenic	7440-38-2	ug/l	5 : 26	D	5.00E+01	2.00E+02	1.00E+01	Yes	Yes
Barium	7440-39-3	ug/l	3 : 26	D	1.24E+01	2.47E+01	2.00E+03	No	No
Barium	7440-39-3	ug/l	7 : 26	T	1.07E+01	2.47E+01	2.00E+03	No	No
Beryllium	7440-41-7	ug/l	21 : 26	T	8.80E-02	8.80E+00	4.00E+00	No	Yes
Boron	7440-42-8	ug/l	1 : 26	T	3.34E+03	3.34E+03	7.30E+02	Yes	Yes
Boron	7440-42-8	ug/l	1 : 26	D	3.25E+03	3.25E+03	7.30E+02	Yes	Yes
Cadmium	7440-43-9	ug/l	19 : 26	D	5.70E-02	5.70E+00	5.00E+00	No	Yes

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Cadmium	7440-43-9	ug/l	20 : 26	T	5.70E-02	5.70E+00	5.00E+00	No	Yes
Chromium	7440-47-3	ug/l	2 : 22	T	7.00E+01	2.80E+02	1.00E+02	No	Yes
Chromium	7440-47-3	ug/l	11 : 26	D	2.80E+00	2.80E+02	1.00E+02	No	Yes
Cobalt	7440-48-4	ug/l	16 : 26	T	3.10E+00	3.13E+01	7.30E+01	No	No
Cobalt	7440-48-4	ug/l	19 : 26	D	3.10E-01	3.13E+01	7.30E+01	No	No
Copper	7440-50-8	ug/l	19 : 26	T	2.40E+00	2.50E+01	1.30E+03	No	No
Copper	7440-50-8	ug/l	14 : 26	D	5.00E+00	2.50E+01	1.30E+03	No	No
Iron	7439-89-6	ug/l	15 : 22	T	9.40E+01	9.40E+02	3.00E+02	No	Yes
Lead	7439-92-1	ug/l	22 : 26	T	4.90E-01	4.92E+01	1.50E+01	No	Yes
Manganese	7439-96-5	ug/l	10 : 26	D	1.10E+00	3.42E+01	5.00E+01	No	No
Manganese	7439-96-5	ug/l	17 : 26	T	8.30E-01	1.73E+02	5.00E+01	No	Yes
Molybdenum	7439-98-7	ug/l	6 : 26	D	2.50E+01	5.00E+01	1.83E+01	Yes	Yes
Molybdenum	7439-98-7	ug/l	8 : 26	T	2.50E+01	5.00E+01	1.83E+01	Yes	Yes
Nickel	7440-02-0	ug/l	18 : 26	T	5.20E+00	5.17E+01	7.30E+01	No	No
Nickel	7440-02-0	ug/l	16 : 26	D	5.20E+00	5.17E+01	7.30E+01	No	No
Selenium	7782-49-2	ug/l	23 : 26	T	1.00E+00	1.00E+02	5.00E+01	No	Yes
Selenium	7782-49-2	ug/l	19 : 26	D	1.00E+00	1.00E+02	5.00E+01	No	Yes
Silver	7440-22-4	ug/l	21 : 26	T	2.00E-01	2.03E+01	1.00E+02	No	No
Thallium	7440-28-0	ug/l	25 : 26	D	3.20E-01	3.20E+01	2.00E+00	No	Yes
Thallium	7440-28-0	ug/l	24 : 26	T	3.20E-01	3.20E+01	2.00E+00	No	Yes

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Tin	7440-31-5	ug/l	19 : 26	T	2.00E-01	2.00E+01	2.19E+03	No	No
Titanium	7440-32-6	ug/l	18 : 26	T	4.20E+00	3.91E+01	1.46E+04	No	No
Titanium	7440-32-6	ug/l	15 : 26	D	3.90E+00	3.91E+01	1.46E+04	No	No
Vanadium	7440-62-2	ug/l	14 : 26	T	3.20E+01	1.60E+02	3.65E+00	Yes	Yes
Vanadium	7440-62-2	ug/l	14 : 26	D	3.20E+01	1.60E+02	3.65E+00	Yes	Yes
Zinc	7440-66-6	ug/l	17 : 26	T	2.00E+00	1.00E+02	5.00E+03	No	No
Zinc	7440-66-6	ug/l	13 : 26	D	2.00E+01	1.00E+02	5.00E+03	No	No
SW 846 7199									
Chromium-hexavalent	18540-29-9	ug/l	15 : 67	N	2.00E-01	4.00E+00	1.09E+01	No	No
SW 846 7470									
Mercury	7439-97-6	ug/l	22 : 26	D	9.30E-02	1.60E-01	2.00E+00	No	No
Mercury	7439-97-6	ug/l	19 : 26	T	9.30E-02	1.40E-01	2.00E+00	No	No
Perchlorate									
EPA 314.0									
Perchlorate	14797-73-0	ug/l	1 : 27	N	3.39E+01	3.39E+01	1.80E+01	Yes	Yes
Pesticide									
SW 846 8081									
Alpha-BHC	319-84-6	ug/l	19 : 27	N	5.00E-02	5.00E-02	1.1E-03	Yes	Yes
Beta-BHC	319-85-7	ug/l	25 : 27	N	5.00E-02	5.00E-02	3.74E-03	Yes	Yes

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Delta-BHC	319-86-8	ug/l	22 : 27	N	5.00E-02	5.00E-02	1.10E-03	Yes	Yes
Gamma-BHC (Lindane)	58-89-9	ug/l	24 : 27	N	5.00E-02	5.00E-02	2.00E-01	No	No
Gamma-Chlordane	5103-74-2	ug/l	25 : 27	N	5.00E-02	5.00E-02	2.00E+00	No	No
Heptachlor	76-44-8	ug/l	24 : 27	N	5.00E-02	5.00E-02	4.00E-01	No	No
Methoxychlor	72-43-5	ug/l	26 : 27	N	1.00E-01	1.00E-01	4.00E+01	No	No
RAD									
EPA 903.1									
Ra-226 - soluble	Ra-226 sol	pci/l	6 : 22	D	8.95E-02	2.03E-01	5.00E+00	No	No
Ra-226 - soluble	Ra-226 sol	pci/l	7 : 25	T	-7.28E-02	3.32E-01	5.00E+00	No	No
EPA 904.0									
Ra-228 - soluble	Ra-228 sol	pci/l	9 : 25	T	1.06E-01	8.62E-01	5.00E+00	No	No
Ra-228 - soluble	Ra-228 sol	pci/l	10 : 22	D	2.16E-01	9.82E-01	5.00E+00	No	No
HASL-300 TH MOD									
Th-228 - soluble	Th-228 sol	pci/l	4 : 5	T	0.00E+00	5.84E-02	1.59E-01	No	No
Th-230 - soluble	Th-230 sol	pci/l	1 : 4	D	1.27E-02	1.27E-02	5.23E-02	No	No
Th-230 - soluble	Th-230 sol	pci/l	1 : 5	T	7.98E-02	7.98E-02	5.23E-02	Yes	Yes
Th-232 - soluble	Th-232 sol	pci/l	3 : 5	T	1.88E-02	3.33E-02	4.71E-01	No	No
SVOC									
SW 846 8270									

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
1,4-Dioxane	123-91-1	ug/l	26 : 27	N	1.00E+01	1.00E+01	6.11E-01	Yes	Yes
bis(2-Ethylhexyl)phthalate	117-81-7	ug/l	21 : 27	N	1.00E+01	1.00E+01	6.00E+00	Yes	Yes
Di-N-Butyl phthalate	84-74-2	ug/l	26 : 27	N	1.00E+01	1.00E+01	3.65E+02	No	No
Naphthalene	91-20-3	ug/l	26 : 27	N	1.00E+01	1.00E+01	6.20E-01	Yes	Yes
VOC									
SW 846 8260									
1,1,1-Trichloroethane	71-55-6	ug/l	26 : 27	N	5.00E+00	5.00E+02	2.00E+02	No	Yes
1,1-Dichloroethane	75-34-3	ug/l	24 : 27	N	5.00E+00	5.00E+02	8.11E+01	No	Yes
1,1-Dichloroethene	75-35-4	ug/l	23 : 27	N	5.00E+00	5.00E+02	7.00E+00	No	Yes
1,2,3-Trichlorobenzene	87-61-6	ug/l	25 : 27	N	5.00E+00	5.00E+02	7.00E+01	No	Yes
1,2,4-Trichlorobenzene	120-82-1	ug/l	25 : 27	N	5.00E+00	5.00E+02	7.00E+01	No	Yes
1,2-Dichlorobenzene	95-50-1	ug/l	17 : 27	N	5.00E+00	5.00E+02	6.00E+02	No	No
1,2-Dichloroethane	107-06-2	ug/l	26 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
1,3-Dichlorobenzene	541-73-1	ug/l	23 : 27	N	5.00E+00	5.00E+02	1.83E+01	No	Yes
1,4-Dichlorobenzene	106-46-7	ug/l	15 : 27	N	5.00E+00	5.00E+02	7.50E+01	No	Yes
Benzene	71-43-2	ug/l	22 : 27	N	5.00E+00	5.00E+00	5.00E+00	No	No
Bromobenzene	108-86-1	ug/l	27 : 27	N	5.00E+00	5.00E+02	2.03E+00	Yes	Yes
Bromodichloromethane	75-27-4	ug/l	27 : 27	N	5.00E+00	5.00E+02	8.00E+01	No	Yes
Bromoform	75-25-2	ug/l	23 : 27	N	5.00E+00	5.00E+02	8.00E+01	No	Yes

Table K-5
Comparison of Detection Limits of Nondetect Results for SRCs Detected in at Least One Sample in Groundwater to the Direct Contact Comparison Levels (a)
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOND (c)	Total or Dissolved	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?
Bromomethane	74-83-9	ug/l	26 : 27	N	1.00E+01	1.00E+03	8.66E-01	Yes	Yes
Carbon tetrachloride	56-23-5	ug/l	19 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
Chlorobenzene	108-90-7	ug/l	23 : 27	N	5.00E+00	5.00E+00	1.00E+02	No	No
Chloroform	67-66-3	ug/l	2 : 27	N	5.00E+00	5.00E+00	8.00E+01	No	No
Chloromethane	74-87-3	ug/l	25 : 27	N	5.00E+00	5.00E+02	1.58E+01	No	Yes
Dibromochloromethane	124-48-1	ug/l	27 : 27	N	5.00E+00	5.00E+02	8.00E+01	No	Yes
Methyl tert butyl ether	1634-04-4	ug/l	25 : 27	N	5.00E+00	5.00E+02	2.00E+01	No	Yes
Tetrachloroethene	127-18-4	ug/l	19 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
Toluene	108-88-3	ug/l	26 : 27	N	5.00E+00	5.00E+02	1.00E+03	No	No
Trichloroethene	79-01-6	ug/l	19 : 27	N	5.00E+00	5.00E+02	5.00E+00	No	Yes
Trichlorofluoromethane	75-69-4	ug/l	26 : 27	N	5.00E+00	5.00E+02	1.29E+02	No	Yes

Notes:

CAS - Chemical Abstracts Service number or other identifier.

SRC - Site-Related Chemical.

D - Dissolved.

N - Not Applicable.

T - Total.

(a) All SRCs listed on this table were not detected in any Phase A groundwater sample.

(b) See Table 5-1 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of non-detects - Number of non-detects:Total number of samples (sample and duplicate treated as one sample).

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
O. Pesticides									
SW 846 8141A									
Ethyl Parathion	56-38-2	ug/l	27 : 27	1.00E+00	1.00E+00		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)
Methyl parathion	298-00-0	ug/l	27 : 27	4.00E+00	4.00E+00		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)
Pesticide									
SW 846 8081									
4,4'-DDD	72-54-8	ug/l	27 : 27	5.00E-02	5.00E-02		No	No	Not sufficiently volatile (USEPA 2002)
4,4'-DDE	72-55-9	ug/l	27 : 27	5.00E-02	5.00E-02	2.90E+00	No	No	
4,4'-DDT	50-29-3	ug/l	27 : 27	5.00E-02	5.00E-02		No	No	Not sufficiently volatile (USEPA 2002)
Aldrin	309-00-2	ug/l	27 : 27	5.00E-02	5.00E-02	7.10E-03	Yes	Yes	
Alpha-chlordane	5103-71-9	ug/l	0 : 27	5.00E-02	5.00E-02	1.20E+00	No	No	
Dieldrin	60-57-1	ug/l	27 : 27	5.00E-02	5.00E-02	8.60E-02	No	No	
Endosulfan I	959-98-8	ug/l	0 : 27	5.00E-02	5.00E-02		No	No	Pathway incomplete (USEPA 2002)
Endosulfan II	33213-65-9	ug/l	0 : 27	5.00E-02	5.00E-02		No	No	Pathway incomplete (USEPA 2002)
Endosulfan Sulfate	1031-07-8	ug/l	0 : 27	5.00E-02	5.00E-02		No	No	Pathway incomplete (USEPA 2002)
Endrin	72-20-8	ug/l	0 : 27	5.00E-02	5.00E-02		No	No	Not sufficiently volatile (USEPA 2002)
Endrin Aldehyde	7421-93-4	ug/l	0 : 27	5.00E-02	5.00E-02		No	No	Not sufficiently volatile (USEPA 2002)

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SR(a)	CAS							
Endrin Ketone	53494-70-5	ug/l	0 : 27	5.00E-02	5.00E-02	No	No	Not sufficiently volatile (USEPA 2002)
Heptachlor Epoxide	1024-57-3	ug/l	0 : 27	5.00E-02	5.00E-02	4.00E-01	No	No
Tech-Chlordane	57-74-9	ug/l		5.00E-01	5.00E-01	1.20E+00	No	No
Toxaphene	8001-35-2	ug/l	0 : 27	2.00E+00	2.00E+00	No	No	Not sufficiently volatile (USEPA 2002)
SVOC								
SW 846 8260								
Naphthalene	91-20-3	ug/l	0 : 3	5.00E+00	5.00E+02	1.50E+01	No	Yes
Naphthalene	91-20-3	ug/l	27 : 27	5.00E+00	5.00E+02	1.50E+01	No	Yes
SVOC								
SW 846 8270								
2-Methylnaphthalene	91-57-6	ug/l	0 : 3	1.00E+01	1.00E+01	3.30E+02	No	No
2-Methylnaphthalene	91-57-6	ug/l	27 : 27	1.00E+01	1.00E+01	3.30E+02	No	No
Acenaphthene	83-32-9	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Acenaphthene	83-32-9	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Acenaphthylene	208-96-8	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Acenaphthylene	208-96-8	ug/l	0 : 25	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Anthracene	120-12-7	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Anthracene	120-12-7	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
Benz(a)anthracene	56-55-3	ug/l	3 : 3	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Benz(a)anthracene	56-55-3	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Benzo(a)pyrene	50-32-8	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Benzo(a)pyrene	50-32-8	ug/l	0 : 3	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Benzo(b)fluoranthene	205-99-2	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Pathway incomplete (USEPA 2002)
Benzo(b)fluoranthene	205-99-2	ug/l	3 : 3	1.00E+01	1.00E+01		No	No	Pathway incomplete (USEPA 2002)
Benzo(g,h,i)perylene	191-24-2	ug/l	0 : 3	1.00E+01	1.00E+01		No	No	Not volatile (Henry's Law<1E-5 atm m ³ /mol)
Benzo(g,h,i)perylene	191-24-2	ug/l	0 : 27	1.00E+01	1.00E+01		No	No	Not volatile (Henry's Law<1E-5 atm m ³ /mol)
Benzo(k)fluoranthene	207-08-9	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile/toxic (USEPA 2002)
Benzo(k)fluoranthene	207-08-9	ug/l	3 : 3	1.00E+01	1.00E+01		No	No	Not sufficiently volatile/toxic (USEPA 2002)
Butyl benzyl phthalate	85-68-7	ug/l	0 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile/toxic (USEPA 2002)
Chrysene	218-01-9	ug/l	0 : 3	1.00E+01	1.00E+01		No	No	Pathway incomplete (USEPA 2002)
Chrysene	218-01-9	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Pathway incomplete (USEPA 2002)
Dibenz(a,h)anthracene	53-70-3	ug/l	27 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Dibenz(a,h)anthracene	53-70-3	ug/l	3 : 3	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Diethyl phthalate	84-66-2	ug/l	0 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)
Dimethyl phthalate	131-11-3	ug/l	0 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile (USEPA 2002)

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SRC (a)	CAS							
Di-N-Octyl phthalate	117-84-0	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Fluoranthene	206-44-0	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Fluoranthene	206-44-0	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Fluorene	86-73-7	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Fluorene	86-73-7	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Hexachlorobenzene	118-74-1	ug/l	0 : 3	1.00E+01	1.00E+01	1.00E+00	Yes	Yes
Hexachlorobenzene	118-74-1	ug/l	27 : 27	1.00E+01	1.00E+01	1.00E+00	Yes	Yes
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	3 : 3	1.00E+01	1.00E+01	No	No	Not sufficiently volatile/toxic (USEPA 2002)
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	27 : 27	1.00E+01	1.00E+01	No	No	Not sufficiently volatile/toxic (USEPA 2002)
Nitrobenzene	98-95-3	ug/l	27 : 27	1.00E+01	1.00E+01	2.00E+02	No	No
Phenanthrene	85-01-8	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Phenanthrene	85-01-8	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Not sufficiently toxic (USEPA 2002)
Pyrene	129-00-0	ug/l	0 : 3	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Pyrene	129-00-0	ug/l	0 : 27	1.00E+01	1.00E+01	No	No	Pathway incomplete (USEPA 2002)
Pyridine	110-86-1	ug/l	27 : 27	2.00E+01	2.00E+01	No	No	Not sufficiently volatile (USEPA 2002)
SVOC								
SW 846 8270 SIM								
2-Methylnaphthalene	91-57-6	ug/l	27 : 27	2.00E-01	2.00E-01	3.30E+02	No	No

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		SRC (a)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
2-Methylnaphthalene		91-57-6	ug/l	0 : 3	2.00E-01	2.00E-01	3.30E+02	No	No		
Acenaphthene		83-32-9	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Acenaphthene		83-32-9	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Acenaphthylene		208-96-8	ug/l	0 : 25	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Acenaphthylene		208-96-8	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Anthracene		120-12-7	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently toxic (USEPA 2002)	
Anthracene		120-12-7	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently toxic (USEPA 2002)	
Benz(a)anthracene		56-55-3	ug/l	3 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)	
Benz(a)anthracene		56-55-3	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)	
Benzo(a)pyrene		50-32-8	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)	
Benzo(a)pyrene		50-32-8	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)	
Benzo(b)fluoranthene		205-99-2	ug/l	3 : 3	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Benzo(b)fluoranthene		205-99-2	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)	
Benzo(g,h,i)perylene		191-24-2	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)	
Benzo(g,h,i)perylene		191-24-2	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)	
Benzo(k)fluoranthene		207-08-9	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently volatile/toxic (USEPA 2002)	
Benzo(k)fluoranthene		207-08-9	ug/l	3 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently volatile/toxic (USEPA 2002)	

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
Chrysene	218-01-9	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)
Chrysene	218-01-9	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)
Dibenz(a,h)anthracene	53-70-3	ug/l	3 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)
Dibenz(a,h)anthracene	53-70-3	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently volatile (USEPA 2002)
Fluoranthene	206-44-0	ug/l	0 : 27	2.00E-01	2.60E-01		No	No	Not sufficiently toxic (USEPA 2002)
Fluoranthene	206-44-0	ug/l	0 : 3	2.00E-01	2.60E-01		No	No	Not sufficiently toxic (USEPA 2002)
Fluorene	86-73-7	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)
Fluorene	86-73-7	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)
Hexachlorobenzene	118-74-1	ug/l	27 : 27	2.00E-01	2.00E-01	1.00E+00	No	No	
Hexachlorobenzene	118-74-1	ug/l	0 : 3	2.00E-01	2.00E-01	1.00E+00	No	No	
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	3 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently volatile/toxic (USEPA 2002)
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	27 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently volatile/toxic (USEPA 2002)
Naphthalene	91-20-3	ug/l	0 : 3	2.00E-01	2.00E-01	1.50E+01	No	No	
Naphthalene	91-20-3	ug/l	27 : 27	2.00E-01	2.00E-01	1.50E+01	No	No	
Phenanthrene	85-01-8	ug/l	0 : 3	2.00E-01	2.00E-01		No	No	Not sufficiently toxic (USEPA 2002)
Phenanthrene	85-01-8	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Not sufficiently toxic (USEPA 2002)
Pyrene	129-00-0	ug/l	0 : 27	2.00E-01	2.00E-01		No	No	Pathway incomplete (USEPA 2002)

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SRC (a)	CAS							
Pyrene	129-00-0	ug/l	0 : 3	2.00E-01	2.00E-01	No	No	Pathway incomplete (USEPA 2002)
VOC								
SW 846 8260								
1,1,1,2-Tetrachloroethane	630-20-6	ug/l	27 : 27	5.00E+00	5.00E+02	3.30E-01	Yes	Yes
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	27 : 27	5.00E+00	5.00E+02	3.00E-01	Yes	Yes
1,1,2-Trichloroethane	79-00-5	ug/l	2 : 27	5.00E+00	5.00E+02	5.00E+00	No	Yes
1,1-Dichloropropene	563-58-6	ug/l	27 : 27	5.00E+00	5.00E+02	8.40E-02	Yes	Yes
1,2,3-Trichloropropane	96-18-4	ug/l	27 : 27	5.00E+00	5.00E+02	2.90E+01	No	Yes
1,2,4-Trimethylbenzene	95-63-6	ug/l	27 : 27	5.00E+00	5.00E+02	2.40E+00	Yes	Yes
1,2-Dibromo-3-chloropropan	96-12-8	ug/l	27 : 27	5.00E+00	5.00E+02	3.30E+00	Yes	Yes
1,2-Dichloropropane	78-87-5	ug/l	2 : 27	5.00E+00	5.00E+02	3.50E+00	Yes	Yes
1,3,5-Trimethylbenzene	108-67-8	ug/l	27 : 27	5.00E+00	5.00E+02	2.50E+00	Yes	Yes
1,3-Dichloropropane	142-28-9	ug/l	2 : 27	5.00E+00	5.00E+02	3.50E+00	Yes	Yes
2-Butanone	78-93-3	ug/l	2 : 27	1.00E+01	1.00E+03	4.40E+04	No	No
2-Chlorotoluene	95-49-8	ug/l	2 : 27	5.00E+00	5.00E+02	3.90E+01	No	Yes
2-Hexanone	591-78-6	ug/l	2 : 27	1.00E+01	1.00E+03	1.40E+03	No	No
4-Chlorotoluene	106-43-4	ug/l	2 : 27	5.00E+00	5.00E+02	3.90E+01	No	Yes
4-Isopropyltoluene	99-87-6	ug/l	2 : 27	5.00E+00	5.00E+02	8.40E-01	Yes	Yes

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method SRC (a)	CAS	Unit	FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
4-Methyl-2-pentanone	108-10-1	ug/l	2 : 27	1.00E+01	1.00E+03	1.40E+03	No	No	
Acetone	67-64-1	ug/l	2 : 27	1.00E+01	1.00E+03	2.20E+04	No	No	
Bromochloromethane	74-97-5	ug/l	27 : 27	5.00E+00	5.00E+02	5.80E+00	No	Yes	
Chloroethane	75-00-3	ug/l	27 : 27	5.00E+00	5.00E+02	2.80E+03	No	No	
cis-1,2-Dichloroethene	156-59-2	ug/l	2 : 27	5.00E+00	5.00E+02	2.10E+01	No	Yes	
cis-1,3-Dichloropropene	10061-01-5	ug/l	27 : 27	5.00E+00	5.00E+02	8.40E-02	Yes	Yes	
Dibromomethane	74-95-3	ug/l	2 : 27	5.00E+00	5.00E+02	9.90E+01	No	Yes	
Dichlorodifluoromethane	75-71-8	ug/l	2 : 27	5.00E+00	5.00E+02	1.40E+00	Yes	Yes	
Ethyl t-butyl ether	637-92-3	ug/l	27 : 27	5.00E+00	5.00E+02	1.20E+04	No	No	
Ethylbenzene	100-41-4	ug/l	0 : 27	5.00E+00	5.00E+02	7.00E+02	No	No	
Ethylene dibromide	106-93-4	ug/l	27 : 27	5.00E+00	5.00E+02	3.60E-02	Yes	Yes	
Hexachlorobutadiene	87-68-3	ug/l	27 : 27	5.00E+00	5.00E+02	3.30E-02	Yes	Yes	
isopropyl ether	108-20-3	ug/l		5.00E+00	5.00E+02	5.20E+01	No	Yes	
Isopropylbenzene	98-82-8	ug/l	2 : 27	5.00E+00	5.00E+02	8.40E-01	Yes	Yes	
Methylene chloride	75-09-2	ug/l	2 : 27	5.00E+00	5.00E+02	5.80E+00	No	Yes	
N-Butylbenzene	104-51-8	ug/l	2 : 27	5.00E+00	5.00E+02	2.60E+01	No	Yes	
N-Propylbenzene	103-65-1	ug/l	2 : 27	5.00E+00	5.00E+02	3.20E+01	No	Yes	

Table K-6
Comparison of Detection Limits of Nondetected SRCs in Groundwater to Comparison Levels for the Groundwater to Indoor Air Migration Pathway
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOE (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SRC (a)	CAS							
sec-Butylbenzene	135-98-8	ug/l	2 : 27	5.00E+00	5.00E+02	2.50E+01	No	Yes
Styrene	100-42-5	ug/l	2 : 25	5.00E+00	5.00E+02	8.90E+02	No	No
tert-Butylbenzene	98-06-6	ug/l	2 : 27	5.00E+00	5.00E+02	2.90E+01	No	Yes
trans-1,2-Dichloroethylene	156-60-5	ug/l	2 : 27	5.00E+00	5.00E+02	1.80E+01	No	Yes
trans-1,3-Dichloropropene	10061-02-6	ug/l	27 : 27	5.00E+00	5.00E+02	8.40E-02	Yes	Yes
Vinylchloride	75-01-4	ug/l	27 : 27	5.00E+00	5.00E+02	2.00E+00	Yes	Yes
Xylene (Total)	1330-20-7	ug/l	0 : 27	1.00E+01	1.00E+03	2.20E+03	No	No

Notes:

CAS - Chemical Abstract Service.

EA - Evaluation Area.

SRC - Site-Related Chemical.

USEPA - United States Environmental Protection Agency.

(a) Includes all chemicals not detected in groundwater that are listed as potentially volatile/toxic enough to warrant evaluation in the vapor intrusion pathway in (b).

(b) See Table 5-18 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of exceedance - Number of non-detects with detection limits greater than comparison limit: Total number of samples (sample and duplicate treated as one sample).

Table K-7
Comparison of Detection Limits of Nondetected Results for the Detected SRCs in Groundwater to Comparison Levels for the Vapor Intrusion Pathway
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		CAS	Unit	FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
Src (a)										
Pesticide										
SW 846 8081										
Alpha-BHC	319-84-6	ug/l	19 : 27	5.00E-02	5.00E-02	3.10E-01	No	No		
Beta-BHC	319-85-7	ug/l	25 : 27	5.00E-02	5.00E-02		No	No	Not sufficiently volatile (USEPA 2002)	
Delta-BHC	319-86-8	ug/l	22 : 27	5.00E-02	5.00E-02		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)	
Gamma-BHC (Lindane)	58-89-9	ug/l	24 : 27	5.00E-02	5.00E-02	1.10E+00	No	No		
Gamma-Chlordane	5103-74-2	ug/l	25 : 27	5.00E-02	5.00E-02	1.20E+00	No	No		
Heptachlor	76-44-8	ug/l	24 : 27	5.00E-02	5.00E-02	4.00E-01	No	No		
Methoxychlor	72-43-5	ug/l	26 : 27	1.00E-01	1.00E-01		No	No	Pathway incomplete (USEPA 2002)	
SVOC										
SW 846 8270										
1,4-Dioxane	123-91-1	ug/l	26 : 27	1.00E+01	1.00E+01		No	No	Not volatile (Henry's Law<1E-5 atm m3/mol)	
bis(2-Ethylhexyl)phthalate	117-81-7	ug/l	21 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile/toxic (USEPA 2002)	
Di-N-Butyl phthalate	84-74-2	ug/l	26 : 27	1.00E+01	1.00E+01		No	No	Not sufficiently volatile/toxic (USEPA 2002)	
Naphthalene	91-20-3	ug/l	26 : 27	1.00E+01	1.00E+01	1.50E+01	No	No		
VOC										
SW 846 8260										

Table K-7
Comparison of Detection Limits of Nondetected Results for the Detected SRCs in Groundwater to Comparison Levels for the Vapor Intrusion Pathway
Phase A Source Area Investigation Results
Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SRM (a)	CAS							
1,1,1-Trichloroethane	71-55-6	ug/l	26 : 27	5.00E+00	5.00E+02	3.10E+02	No	Yes
1,1-Dichloroethane	75-34-3	ug/l	24 : 27	5.00E+00	5.00E+02	2.20E+02	No	Yes
1,1-Dichloroethene	75-35-4	ug/l	23 : 27	5.00E+00	5.00E+02	1.90E+01	No	Yes
1,2,3-Trichlorobenzene	87-61-6	ug/l	25 : 27	5.00E+00	5.00E+02	3.40E+02	No	Yes
1,2,4-Trichlorobenzene	120-82-1	ug/l	25 : 27	5.00E+00	5.00E+02	3.40E+02	No	Yes
1,2-Dichlorobenzene	95-50-1	ug/l	17 : 27	5.00E+00	5.00E+02	2.60E+02	No	Yes
1,2-Dichloroethane	107-06-2	ug/l	26 : 27	5.00E+00	5.00E+02	5.00E+00	No	Yes
1,3-Dichlorobenzene	541-73-1	ug/l	23 : 27	5.00E+00	5.00E+02	8.30E+01	No	Yes
1,4-Dichlorobenzene	106-46-7	ug/l	15 : 27	5.00E+00	5.00E+02	8.20E+02	No	No
Benzene	71-43-2	ug/l	22 : 27	5.00E+00	5.00E+00	5.00E+00	No	No
Bromobenzene	108-86-1	ug/l	27 : 27	5.00E+00	5.00E+02	3.90E+01	No	Yes
Bromodichloromethane	75-27-4	ug/l	27 : 27	5.00E+00	5.00E+02	2.10E-01	Yes	Yes
Bromoform	75-25-2	ug/l	23 : 27	5.00E+00	5.00E+02	8.30E-04	Yes	Yes
Bromomethane	74-83-9	ug/l	26 : 27	1.00E+01	1.00E+03	2.00E+00	Yes	Yes
Carbon tetrachloride	56-23-5	ug/l	19 : 27	5.00E+00	5.00E+02	5.00E+00	No	Yes
Chlorobenzene	108-90-7	ug/l	23 : 27	5.00E+00	5.00E+00	3.90E+01	No	No
Chloroform	67-66-3	ug/l	2 : 27	5.00E+00	5.00E+00	8.00E+01	No	No

Table K-7
Comparison of Detection Limits of Nondetected Results for the Detected SRCs in Groundwater to Comparison Levels for the Vapor Intrusion Pathway
 Phase A Source Area Investigation Results
 Tronox Facility - Henderson, Nevada

Analyte Type/Analytical Method		FOND (c)	Minimum Detection Limit	Maximum Detection Limit	Comparison Level (b)	Minimum Detection Limit Exceeds Comparison Level?	Maximum Detection Limit Exceeds Comparison Level?	Note
SRC (a)	CAS							
Chloromethane	74-87-3	ug/l	25 : 27	5.00E+00	5.00E+02	6.70E-01	Yes	Yes
Dibromochloromethane	124-48-1	ug/l	27 : 27	5.00E+00	5.00E+02	3.20E-01	Yes	Yes
Methyl tert butyl ether	1634-04-4	ug/l	25 : 27	5.00E+00	5.00E+02	1.20E+04	No	No
Tetrachloroethene	127-18-4	ug/l	19 : 27	5.00E+00	5.00E+02	5.00E+00	No	Yes
Toluene	108-88-3	ug/l	26 : 27	5.00E+00	5.00E+02	1.50E+02	No	Yes
Trichloroethene	79-01-6	ug/l	19 : 27	5.00E+00	5.00E+02	5.00E+00	No	Yes
Trichlorofluoromethane	75-69-4	ug/l	26 : 27	5.00E+00	5.00E+02	1.80E+01	No	Yes

Notes:

CAS - Chemical Abstract Service.

EA - Evaluation Area.

SRC - Site-Related Chemical.

USEPA - United States Environmental Protection Agency.

(a) Includes all chemicals not detected in groundwater that are listed as potentially volatile/toxic enough to warrant evaluation in the vapor intrusion pathway in (b).

(b) See Table 5-18 for comparison levels, as well as references, footnotes and synonyms.

(c) Frequency of non-detects - Number of non-detects:Total number of samples (sample and duplicate treated as one sample).