ADDENDUM TO THE

FINAL PHASE II RFI REPORT

TOOELE ARMY DEPOT SOUTH AREA

(DESERET CHEMICAL DEPOT)

GROUP 2 SWMUs

Verification of Risk Assessment Results

February 8, 1999

PURPOSE

This addendum is intended to verify the results of human health and ecological risk assessments presented in the Phase II Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report for Group 2 Units at the Tooele Army Depot South Area (EBASCO, 1996), which is now known as the Deseret Chemical Depot. The Solid Waste Management Units (SWMUs) included in Group 2 are SWMUs 3, 5, 8, 9, 30, and 31. The methods used to verify these results were adapted from the risk assessment methodology used in the RFI Report. Much of this methodology was reviewed and accepted by the Utah Division of Solid and Hazardous Waste for use in the preparation of the Final Dugway Proving Ground Closure Plan Module 2 for Consent Order Units (Foster Wheeler Environmental, July 1997). In this addendum, the approach is used to demonstrate that the RFI results provide a sound basis for the Corrective Measures Study, which has been prepared in draft final form for state review. State acceptance of the RFI results will allow continued progress on the Corrective Measures Study and Decision Document.

TECHNICAL APPROACH

The approach used to verify the RFI results includes the following steps: (1) calculate total risk to human and biological receptors, (2) identify the analytes that are major contributors to the total risk results, and (3) evaluate in detail this smaller group of relatively important chemicals. The results were then used to verify the correct assignment of each unit to the proper corrective action category defined in the Utah Administrative Code (R315-101). These categories, as defined by human health risk assessment results, are presented below:

- A SWMU qualifies for risk-based (clean) closure if, and only if, the excess cancer risk is less than 10^{-6} and the noncancer hazard index (HI) is less than 1.0 for residential use.
- Site controls are required if the cancer risk associated with the actual land use is less than 10^{-4}, provided that the HI is less than 1.0; corrective action is optional.
- Corrective action is required if the cancer risk is greater than 10^{-4} or the HI is greater than 1.0 for the exposures due to actual use.

As required by the Utah Administrative Code, both human health and ecological risk were evaluated during the Phase II RFI for the Group 2 Units. Ecological risk assessment results are evaluated subjectively in corrective action decision-making process.

VERIFICATION OF THE HUMAN HEALTH RISK ASSESSMENT

Use of Risk-Based Screening Levels

Verification of the human health risk assessment results was initiated by compiling the risk-based screening levels (RBSLs) that were developed according to methodology presented in the RFI Report, as well as in the Final Dugway Proving Ground Closure Plan Module 2 (Foster Wheeler Environmental, July 1997). The RBSLs represent the soil concentration of each analyte that would result in a receptor-specific threshold risk value (e.g., 10^{-6} cancer risk for residential

use). Separate RBSLs were developed for cancer and noncancer health effects and, in the Dugway Proving Ground Closure Plan, for residential and industrial land-use scenarios (Attachment 1). In the RFI, human health risk was originally calculated for exposures to air, soil, and groundwater. To verify the assessment of air and soil contamination, RBSLs that account for multiple exposure pathways were used; these RBSLs were only based on soil concentrations. RBSLs are not included for essential nutrients (calcium, iron, potassium, magnesium, and sodium) because they are not expected to cause adverse health effects. Lead concentrations are compared to the U.S. Environmental Protection Agency (EPA) soil screening level of 400 micrograms per gram (µg/g). As in a conventional risk assessment, analytes for which toxicity data are unavailable are not included in the risk calculations. These analytes can be identified by reviewing the spreadsheet tables (Attachment 1).

The RFI human health risk assessment results for groundwater do not require verification because the RFI recommendations are already the most protective that can result from the risk assessment process alone. Where groundwater contamination is suspected (SWMUs 3, 5, and 9), site controls are required to prevent the use of the shallow groundwater as a drinking water supply. However, because the industrial-use scenario precludes the consumption of groundwater, this additional component would not provide any information to support corrective action decision-making.

Data Presentation

Data for all analytes detected in both surface and subsurface soil at each SWMU were compiled in a spreadsheet format (Attachment 2). The spreadsheets show a variety of statistical information about each detected analyte, including the calculated exposure point concentration.

The verification of the human health risk assessment was completed in a three-step process. The first step estimated the initial total risk for the SWMU which included all analytes detected in soil. In the second step, the number of chemicals of concern (COCs) were reduced by evaluating the frequency of detection and a comparing SWMU-specific metals data to background geochemistry. In the final step, the recalculated risk was verified based on the results of step 2.

For the human health risk assessment, the exposure point concentration of an analyte is estimated as the 95 percent upper confidence limit (UCL) on the arithmetic mean of the analyte concentrations. Where the UCL is greater than the maximum detected value, the maximum is used instead. Other statistical data were included to support a subsequent determination of an analyte as a COC when appropriate. The data record for each detected target analyte includes an "on/off switch" under the column-heading "COC" that can be used to include or exclude the calculated risk for an analyte from the total risk following COC reduction.

Initial Estimate of Total Risk

The spreadsheet calculates the risk of each analyte according to the following equation:

$$Risk = \frac{EPC}{(RBSL \times RTV)}$$

where:

Risk	=	Cancer risk or noncancer hazard quotient (HQ)
EPC	=	Exposure point concentration
RBSL	=	Risk-based screening level
RTV	=	Risk threshold value (cancer=10^{-6} or noncancer=1.0)

The spreadsheet computes an initial estimate of total risk related to all detected analytes for which toxicity data are available. If the total risk was below risk threshold values, no further evaluation was needed. If either excess cancer risk or the noncancer hazard index exceeded a threshold value, then the results were reviewed to identify the major contributors of risk relative to the threshold values. The data for these major contributors were then reviewed to determine whether they are site contaminants that should be selected as COCs. No further effort is required to evaluate the distribution, background geochemistry, or other significance of the remaining analytes, which have little effect on the total risk at the unit.

COC Reduction

Only two COC reduction techniques were needed to verify the human health risk assessment results for the Group 2 units:

- Evaluation of the frequency of detection of organic compounds
- Comparison of metal concentrations detected in SWMU samples to concentrations measured in samples from background locations

Frequency of Detection

If the frequency of detection of an analyte was less than 5 percent, the analyte distribution was evaluated using the analyte detection tables presented in Attachment 3. If a potential hot spot was indicated by high concentrations or clustering of detections at a potential release point, then the analyte was selected as a COC and the associated risk remained as part of the risk calculation. If no hot spot was indicated, then the risk result for this analyte was removed from the total. On the basis of frequency of detection, only one major contributor to total risk was subtracted from the risk calculation. The single chemical excluded from the risk assessment is PCB (Arochlor) 1254 at SWMU 3.

Comparison of Metal Concentrations to Background Conditions

The calculations of total risk at the Group 2 units showed that six metals were major contributors to risk levels that exceeded the threshold values: aluminum, antimony, arsenic, beryllium, manganese, and thallium. The concentrations of these metals in SWMU samples were compared to the background dataset to assess whether metal concentrations measured in SWMU samples indicate site-related contamination or represent background conditions (Attachment 4).

Attachment 4 provides the rationale for the identification of the COCs based on comparison of the detected metal concentrations in SWMU samples to the levels measured in background samples. If several metal concentrations within a unit were high compared to background, or if a small number of elevated concentrations indicated possible hot spot contamination, the risk calculated for this metal remained as part of the total risk characterization. If all concentrations of a metal in samples collected within a unit were below background, or if only a few concentrations slightly exceeded the background level, the associated risk was removed from the risk calculation.

Of the six metals that were major contributors to total risk at the Group 2 SWMUs, only arsenic, beryllium, and antimony were determined to be COCs (Table 1).

Table 1 Metals Selected as COCs in the Human Health Risk Assessment Verification.

SWMU	Al	As	Be	Mn	Sb	Tl
3					X	
5			X		X	
8						
9			X		X	
30		X				
31						

In addition to the comparison of the individual metals concentrations to background, the total risk at each unit was found to be similar in magnitude to the total risk associated solely with naturally occurring metals concentrations, which were represented by the background dataset (Attachment 2, Table 2-1). At SWMUs 3 and 30 the risk was somewhat higher than the general Group 2 background risk. The higher total risk at SWMU 3 is attributable mainly to the higher background concentrations of arsenic, beryllium, and thallium in the SWMU 3 area, which is affected by Mercur Creek sediments. The higher total risk at SWMU 30 is due to arsenic contamination in the east trench.

The basis of this comparison is the background dataset compiled as part of the Phase II RFI. As described in Section 2.3.1 of the RFI Report, 20 soil samples were collected from background locations near the five eastern Group 2 SWMUs. The development of the background dataset from the results of this sampling included the identification and elimination of upper extreme outliers, as presented in Section 2.3.1 of the Phase II RFI Report. Attachment 5 provides a tabulation and graphical plots of the background data for the metals that are major contributors to total risk at the site.

No attempt was made to evaluate surface and subsurface metals concentrations separately at these units or in the background dataset because each of the units has been excavated, regraded, covered with fill, or otherwise disturbed during construction or operations. However, the background data for each SWMU were compared with respect to soil types. Table 2 shows the soil types mapped in the areas where the background and SWMU samples were collected.

The identification of these soil types is based on a draft report by the Salt Lake City office of the Soil Conservation Service (SCS) and the soil type distribution shown in Plate 1 of the RFI Report (EBASCO 1996)

Table 2 Soil Types of the Group 2 SWMUs.

SWMU	Soil Type of Background Samples	Soil Type of SWMU Samples
3	69, Mercur Creek sediments	69, fill, Mercur Creek sediments
5	69	69
8	69	12, 69
9	64	64, 69
30	None collected	58
31	69	12, 69

12 Cliffdown Gravelly Sandy Loam
58 Skumpah Silt Loam
64 Taylorsflat Loam
69 Tooele Fine Sandy Loam

According to the SCS study, soil type 69 is predominant in the eastern five Group 2 units. The background samples were also collected mainly in areas mapped as soil type 69. One background boring was sampled in soil type 64. Supplemental background data were also collected from Mercur Creek sediments, upslope from SWMUs 3 and 9, to verify elevated background

concentrations of arsenic and mercury in the vicinity of SWMU 3; these data, however, were not used to derive background values used in the RFI report.

Human Health Risk Verification Results

Once the COCs were identified, the recalculated human health risk screening results (Attachment 6) were used to verify the RFI human health risk assessment conclusions. The conclusions of the human health risk assessment are summarized in Table 3. As corrective action decision-making is not based on the human health risk assessment alone, additional considerations discussed in the RFI Report have resulted in a decision to carry some units into the Corrective Measures Study. These additional considerations include the presence of unexploded ordnance and ordnance debris at SWMUs 8 and 31. In addition, SWMUs 3 and 9 are ineligible for clean closure because agent breakdown products are present for which no toxicity data are currently available. Finally, lead concentrations exceed the EPA screening level of 400 μg/g at SWMUs 5 and 30. At SWMU 5, three concentrations of lead (490, 500, and 750 μg/g) exceeded the screening level. These concentrations were measured in samples from the pond. At SWMU 30, lead was measured at 850 μg/g in the same disposal trench where arsenic exceeded background. These lead detections should be addressed in the Corrective Measures Study.

ECOLOGICAL RISK ASSESSMENT

Estimation of Total Potential Risk

To verify the ecological risk assessment included in the RFI Report, a re-evaluation of ecological risk was conducted using the approach that would be taken in a preliminary ecological assessment. This "preliminary" assessment evaluates the potential risks to two biological receptors, the deer mouse (*Peromyscus maniculatus*) and horned lark (*Eremophila alpestris*), at the Group 2 SWMUs. Results of this evaluation were derived using conservative parameters, and are used to identify which chemicals do not pose potential ecological risk (i.e., HQ < 1.0). They are not intended to quantify actual risk for chemicals with HQs greater than 1.0. HQs greater than 1.0 are not intended to quantify potential risk, but to indicate which chemicals may require additional evaluation.

The preliminary ecological risk assessment is designed to be appropriately conservative to avoid overlooking potential risk. Therefore, biological receptors with the greatest potential for exposure to contamination were evaluated during the preliminary assessment. Due to the combination of factors including home range, diet composition, site distribution, site residency, and body weight, the deer mouse and horned lark were identified as the most appropriate biological receptors for this assessment.

Tables summarizing the calculations of potential risk to these two receptors at each of the six SWMUs are provided in Attachment 7. Potential risk was evaluated using exposure estimates based on the UCL. For metals detected above background concentrations, the tables include calculation of HQs related to the incremental increase in risk above background concentrations.

Potential risk was calculated for the chemicals detected in surficial soil samples for which an appropriate toxicity reference value (TRV) was readily available. Chemicals lacking TRVs were not evaluated, and their potential to cause risk is uncertain. Due to the bioaccumulation potential of mercury and the availability of a bioaccumulation factor (BAF = 22.5, from mink liver, Wren et al. 1987), potential risk to mammalian predators was also evaluated. A BAF for avian receptors was not available.

Results of the Verification of the Ecological Risk Assessment

The evaluation of UCL-derived incremental HQs indicated that potential risk to the deer mouse or the horned lark is not likely. Although HQs greater than unity were calculated for a small percentage of detected chemicals, the level of conservativism applied in the TRVs and the calculations of exposure is likely to explain these HQs. Therefore, no corrective action is recommended on the basis of this "preliminary" ecological risk assessment that is provided in this addendum.

Table 3 **Human Health Risk Assessment Results and Recommendations for Exposure to Soil at the Group 2 SWMUs**

SWMU	RFI Result	Verification Result	Recommendation
3	Ineligible for clean closure; corrective action required for disposal trench	Ineligible for clean closure; corrective action required for disposal trench	Corrective Measures Study (CMS) required
5	Ineligible for clean closure; no corrective action required	Ineligible for clean closure; no corrective action required	CMS required
8	Clean closure allowed	Clean closure allowed	CMS required to address unexploded ordnance (UXO)
9	Ineligible for clean closure; no corrective action required	Ineligible for clean closure; no corrective action required	CMS required
30	Ineligible for clean closure; hot spot in eastern disposal trench requires consideration in a CMS	Ineligible for clean closure; no corrective action required	CMS required
31	Clean closure allowed	Clean closure allowed	CMS not required as part of this corrective action program; the presence of UXO will be addressed at time of closure according to terms of permit

REFERENCES

EBASCO (Ebasco Services Incorporated)

1996 RCRA Facility Investigation – Phase II for Group 2 SWMUs, Tooele Army Depot – South Area Suspected Releases Units. March 1996.

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1997 Final Dugway Proving Ground Closure Plan, Module 2. July 1997.

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1996 Toxicological Benchmarks for Wildlife: 1996 Revision. Es/Er/TM-86/R3. Prepared by the Risk Assessment Program Health Science Research Division, Oak Ridge, TN. 37831.

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Attachment 1

Calculation of Human Health Risk-Based Screening Levels

Table 1-1 Derivation of Soil Risk-Based Screening Levels (RBSLs) for Residential Land-Use Scenario, Carcinogenic Endpoints

Exposed Population: Residents (childhood to adult exposures, 30-year exposure period)

Exposure Pathway: Ingestion of soil, dermal contact with soil, inhalation of soil particulates, and vapor inhalation*

**vapor inhalation evaluated for volatile constituents only, as defined by chemicals with Henry's Law constants (H) greater than 10^{-5}*

Cumulative RBSL Equation: Cum-RBSL = 1 / [(1/SI-RBSL) + (1/DC-RBSL) + (1/INH-RBSL)]

where:

SI-RBSL = Soil Ingestion Risk-Based Screening Level
DC-RBSL = Dermal Contact Risk-Based Screening Level
INH-RBSL = Inhalation Risk-Based Screening Level

Soil Ingestion Component:

Soil Ingestion RBSL (SI-RBSL) in mg/kg =

$$\frac{TR \times ATc \times 365\ days/year}{EF \times SFo \times 10^{-6}\ kg/mg \times IR_{soil/adj}}$$

Dermal Contact Component:

Dermal Contact RBSL (DC-RBSL) in mg/kg =

$$\frac{TR \times BW \times ATc \times 365\ days/year}{EF \times ED \times SFo \times 10^{-6}\ kg/mg \times SA \times AF \times RAF_d}$$

Inhalation Component:

Inhalation RBSL (INH-RBSL) in mg/kg =

$$\frac{TR \times ATc \times 365\ days/year}{EF \times ED \times URF \times 1{,}000\ ug/mg \times [1/VF + 1/PEF]}$$

(include VF component only for volatile chemicals with $H > 10^{-5}$)

Parameter	Acronym		Assumed Value	Units
Target Cancer Risk	TR		1.0E-06	unitless
Body Weight	BW		70	kg
Averaging Time (carcinogens)	ATc		70	years
Exposure Frequency	EF		350	days/year
Exposure Duration	ED		30	years
Oral cancer slope factor	SFo		chem-specific	$(mg/kg/day)^{-1}$
Soil ingestion rate, age-adjusted	$IR_{soil/adj}$		114	(mg-year)/(kg-day)
Skin surface area	SA		5,800	cm^2/day
Soil to skin adherence factor	AF		1.0	mg/cm^2
Dermal relative absorption factor	RAF_d	*inorganics:*	0.001	unitless
		organics:	0.05	unitless
Inhalation unit risk factor	URF		chem-specific	$(ug/m^3)^{-1}$
Soil-to-air volatilization factor	VF		chem-specific	m^3/kg (for chemicals with $H > 10^{-5}$)
Particulate emission factor	PEF		6.79E+08	m^3/kg

Source of equations and input parameters: EPA 1994 w/ exception of dermal component

Table 1-1 Derivation of Soil RBSLs for Residential Land-Use Scenario,
Carcinogenic Endpoints -- Inorganic Constituents

Constituent	SFo $(mg/kg/day)^{-1}$	URF $(ug/m^3)^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
Aluminum	--	--	--	--	--	--
Antimony	--	--	--	--	--	--
Arsenic	1.75E+00	4.30E-03	3.7E-01	1.7E+01	3.8E+02	3.6E-01
Barium	--	--	--	--	--	--
Beryllium	4.30E+00	2.40E-03	1.5E-01	6.8E+00	6.9E+02	1.5E-01
Cadmium	--	1.80E-03	--	--	9.2E+02	9.2E+02
Chromium III	--	--	--	--	--	--
Chromium VI	--	1.20E-02	--	--	1.4E+02	1.4E+02
Cobalt	--	--	--	--	--	--
Copper	--	--	--	--	--	--
Cyanide	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Manganese	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Nickel	--	--	--	--	--	--
Selenium	--	--	--	--	--	--
Silver	--	--	--	--	--	--
Thallium	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--
Zinc	--	--	--	--	--	--

-- Carcinogenic endpoint not applicable, or toxicity data not available or pending.

Table 1-1 Derivation of Soil RBSLs for Residential Land-Use Scenario,
Carcinogenic Endpoints -- Organic Non-Volatile Constituents

Constituent	H ($atm\text{-}m^3/mol$)	SFo $(mg/kg/day)^{-1}$	URF $(ug/m^3)^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
2,4,6-Trichloroaniline	2.50E-06	3.4E-02	--	1.9E+01	1.7E+01	--	9.0E+00
2,4,6-Trinitrotoluene	4.60E-07	3.0E-02	--	2.1E+01	2.0E+01	--	1.0E+01
4-Cymene	--	--	--	--	--	--	--
4-Methylphenol	4.4E-07	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--
Benzo[a]anthracene	3.61E-06	7.3E-01	--	8.8E-01	8.0E-01	--	4.2E-01
Benzo[a]pyrene	8.37E-07	7.3E+00	--	8.8E-02	8.0E-02	--	4.2E-02
Benzo[b]fluoranthene	6.17E-06	7.3E-01	--	8.8E-01	8.0E-01	--	4.2E-01
Benzo[k]fluoranthene	1.70E-06	7.3E-02	--	8.8E+00	8.0E+00	--	4.2E+00
Bis(2-ethylhexyl) phthalate	8.36E-06	1.4E-02	--	4.6E+01	4.2E+01	--	2.2E+01
Chrysene	1.21E-06	7.3E-03	--	8.8E+01	8.0E+01	--	4.2E+01
DDD	4.96E-06	2.4E-01	--	2.7E+00	2.4E+00	--	1.3E+00
Di-N-butyl phthalate	1.43E-06	--	--	--	--	--	--
Diethyl phthalate	2.15E-06	--	--	--	--	--	--
Dimethyl phthalate	2.15E-06	--	--	--	--	--	--
Dieldrin	2.67E-06	1.6E+01	4.6E-03	4.0E-02	3.7E-02	3.6E+02	1.9E-02
Dimethyl Disulfide	1.50E-06	--	--	--	--	--	--
DIMP	--	--	--	--	--	--	--
Endrin	1.19E-06	--	--	--	--	--	--
Fluoranthene	9.33E-06	--	--	--	--	--	--
Heptachlor epoxide	8.29E-06	9.1E+00	2.6E-03	7.0E-02	6.5E-02	6.4E+02	3.4E-02
HMX	--	--	--	--	--	--	--
Hexachlorobenzene	1.70E-03	1.6E+00	--	4.0E-01	3.7E-01	--	1.9E-01
IMPA	--	--	--	--	--	--	--
Indeno[1,2,3-c,d]pyrene	2.40E-08	7.3E-03	--	8.8E+01	8.0E+01	--	4.2E+01
Lindane, alpha	6.79E-06	6.3E+00	1.8E-03	1.0E-01	9.3E-02	9.2E+02	4.9E-02
Lindane, beta	3.46E-07	1.8E+00	5.3E-04	3.6E-01	3.3E-01	3.1E+03	1.7E-01
Lindane, gamma	3.39E-06	--	--	--	--	--	--
Methoxychlor	6.33E-06	--	--	--	--	--	--
PCB 1248	3.60E-03	2.0E+00	--	3.2E-01	2.9E-01	--	1.5E-01
MPA	--	--	--	--	--	--	--
Prometon	--	--	--	--	--	--	--
Pyrene	8.27E-06	--	--	--	--	--	--
RDX	2.60E-11	1.1E-01	--	5.8E+00	5.3E+00	--	2.8E+00

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-1 Derivation of Soil RBSLs for Residential Land-Use Scenario, Carcinogenic Endpoints -- Organic Volatile Constituents

Constituent	H ($atm\text{-}m^3/mol$)	SFo $(mg/kg/day)^{-1}$	URF $(ug/m^3)^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
1,1,2-Trichloroethane	1.00E-03	5.7E-02	1.6E-05	1.1E+01	1.0E+01	8.5E-01	7.3E-01
1,4-Dichlorobenzene	1.60E-03	2.4E-02	--	2.7E+01	2.4E+01	--	1.3E+01
2-Methylnaphthalene	5.80E-05	--	--	--	--	--	--
Acetone	2.88E-05	--	--	--	--	--	--
Aldrin	1.03E-04	1.7E+01	4.9E-03	3.8E-02	3.5E-02	5.3E-01	1.7E-02
Anthracene	1.11E-04	--	--	--	--	--	--
Benzene	5.47E-03	2.9E-02	8.3E-06	2.2E+01	2.0E+01	5.5E-01	5.2E-01
HCH, beta	--	--	--	--	--	--	--
Chlordane, a- and g-	6.65E-05	1.3E+00	3.7E-04	4.9E-01	4.5E-01	9.5E+00	2.3E-01
Chloroform	4.02E-03	6.1E-03	2.3E-05	1.0E+02	9.6E+01	2.1E-01	2.1E-01
DDE	1.24E-04	3.4E-01	--	1.9E+00	1.7E+00	--	9.0E-01
DDT	5.37E-05	3.4E-01	9.7E-05	1.9E+00	1.7E+00	8.0E+01	8.9E-01
Dibenzofuran	5.30E-03	--	--	--	--	--	--
Di-n-octyl phthalate	1.37E-01	--	--	--	--	--	--
Endosulfan I/II	2.31E-05	--	--	--	--	--	--
Ethylbenzene	7.75E-03	--	--	--	--	--	--
Heptachlor	5.87E-04	4.5E+00	1.3E-03	1.4E-01	1.3E-01	3.4E-01	5.7E-02
MEK	4.35E-05	--	--	--	--	--	--
Methyl-N-butyl Ketone	4.35E-05	--	--	--	--	--	--
Methylene chloride	2.37E-03	7.5E-03	4.7E-07	8.5E+01	7.8E+01	7.1E+00	6.0E+00
Naphthalene	4.80E-04	--	--	--	--	--	--
N-Nitrosodi-N-propylamine	4.14E-05	7.0E+00	--	9.1E-02	8.4E-02	--	4.4E-02
PCB 1242	--	--	--	--	--	--	--
PCB 1254	1.56E-02	--	--	--	--	--	--
PCB 1260	7.10E-03	7.7E+00	--	8.3E-02	7.6E-02	--	4.0E-02
Pentachlorophenol	1.42E-05	1.2E-01	--	5.3E+00	4.9E+00	--	2.6E+00
Phenanthrene	6.05E-03	--	--	--	--	--	--
TCDD	1.53E-04	1.6E+05	3.3E+01	4.1E-06	3.8E-06	--	2.0E-06
Tetrachloroethane-1,1,2,2	3.72E-04	2.0E-01	5.8E-05	3.2E+00	2.9E+00	4.1E-01	3.2E-01
Tetrachloroethylene	1.73E-02	5.2E-02	5.7E-07	1.2E+01	1.1E+01	1.2E+01	3.9E+00
Thiodiglycol	--	--	--	--	--	--	--
Toluene	6.14E-03	--	--	--	--	--	--
TPHC	--	--	--	--	--	--	--
Trichloroethene	1.06E-02	1.1E-02	1.7E-06	5.8E+01	5.3E+01	2.6E+00	2.4E+00
Trichlorofluoromethane	9.70E-02	--	--	--	--	--	--
Xylene	5.25E-03	--	--	--	--	--	--

-- Carcinogenic endpoint not applicable.

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-1 Derivation of Soil RBSLs for Residential Land-Use Scenario, Carcinogenic Endpoints --
VF and SSL Calculations

Volatilization Factor (VF) Equation

$VF = Q/C * (10^{-4} m^2/cm^2) * (3.14 * \alpha * T)^{1/2} / (2 * Dei * \theta_a * Kas)$

where:

$\alpha\ (cm^2/s) = (Dei * \theta_a)/(\theta_a + ((\rho s)(1 - \theta_a)/Kas))$

$Dei\ (cm^2/s) = Di * (\theta_a^{3.33} / n^2)$

$\theta_a = n - w\,\rho b = 0.28$ Lair/Lsoil

$n = 1 - (\rho b/\rho s) = 0.43$ Lpore/Lsoil

Soil Saturation Limit (Csat) Equation

$Csat = S/\rho b * [(Kd * \rho b) + \theta_w + (H' * \theta a)]$

where:		Units
S = solubility in water	= chemical-specific	mg/L-water
ρb = dry soil bulk density	= 1.5E+00	kg/L
θ_w = water-filled soil porosity	= 1.5E-01	L water / L soil
w = average soil moisture content	= 0.1 or 10 percent	unitless

VF Input Parameter Definitions		Value	Units
VF = Volatilization Factor			m^3/kg
Q/C = inverse of the mean conc. at the center of a 30-acre-square source	=	3.5E+01	g/m^2-s per kg/m^3
T = exposure interval	=	9.5E+08	s
Dei = effective diffusivity	=	$Di * (\theta_a^{3.33}/n^2)$	cm^2/s
θ_a = air-filled soil porosity	=	2.8E-01	Lair / Lsoil
Di = diffusivity in air	=	chemical-specific	cm^2/s
n = total soil porosity (for loam)	=	4.3E-01	Lpore / Lsoil
w = average soil moisture content	=	1.0E-01	cm^3 water / g soil
ρb = dry soil bulk density		1.5E+00	g/cm^3 or kg/L
ρs = soil particle density		2.7E+00	g/cm^3
Kas = soil-air partition coefficient	=	H'/Kd	g-soil / cm^3-air
H = Henry's law constant	=	chemical-specific	atm-m^3/mol
H' = Henry's law constant, unitless	=	H * 41	unitless*
**41 is a units conversion factor (where units = mol/atm-m^3)*			
Kd = soil-water partition coefficient	=	chemical-specific	cm^3/g or L/kg**
**or, in lieu of chem-specific data, Kd = Koc * foc*			
Koc = organic carbon partition coefficien	=	chem-specific	cm^3/g or L/kg
foc = organic carbon content of soil	=	6.0E-03	g/g (0.6%)

Source of Equations and Default Input Parameters: EPA Draft Soil Screening Guidance (EPA/540/R-94/106, December 1994)

Chemical-Specific Volatilization Factors (VFs) and Soil Saturation Limit (Csat) Derivations

Parameter	Di (cm^2/s)	Dei * (cm^2/s)	H (atm-m^3/mol)	H' (unitless)	Koc (cm^3/g)	Kd* (cm^3/g)	Kas * (g/cm^3)	a * (cm^2/s)	S (mg/L-water)	VF (m^3/kg)	Csat (mg/kg)
1,1,2-Trichloroethane	7.8E-02	6.1E-03	1.0E-03	4.1E-02	7.6E+01	4.6E-01	9.0E-02	7.9E-05	4.4E+03	5.6E+03	2.5E+03
1,4-Dichlorobenzene	1.3E-01	1.0E-02	1.6E-03	6.6E-02	1.2E+03	7.2E+00	9.1E-03	1.4E-05	2.0E+02	1.4E+04	1.5E+03
2-Methylnaphthalene	5.8E-05	4.5E-06	5.8E-05	2.4E-03	no data	--	--	--	no data	--	--
Acetone	1.2E-01	9.7E-03	2.9E-05	1.2E-03	4.6E-01	2.8E-03	4.3E-01	5.7E-04	6.0E+05	2.0E+03	6.2E+04
Aldrin	1.3E-02	1.0E-03	1.0E-04	4.2E-03	4.8E+04	2.9E+02	1.5E-05	2.2E-09	7.8E-02	1.1E+06	2.3E+01
Anthracene	3.2E-02	2.5E-03	1.1E-04	4.6E-03	2.1E+04	1.3E+02	3.6E-05	1.3E-08	5.4E-02	4.4E+05	6.8E+00
Benzene	8.7E-02	6.8E-03	5.5E-03	2.3E-01	5.7E+01	3.4E-01	6.6E-01	6.0E-04	1.8E+03	1.9E+03	8.7E+02
HCH, beta	no data	--	no data	--	no data	--	--	--	no data	--	--
Chlordane, a- and g-	1.2E-02	9.2E-04	6.7E-05	2.7E-03	5.1E+04	3.1E+02	8.9E-06	1.2E-09	2.2E-01	1.5E+06	6.7E+01
Chloroform	1.0E-01	8.1E-03	4.0E-03	1.6E-01	5.6E+01	3.4E-01	4.9E-01	5.4E-04	8.0E+03	2.0E+03	3.7E+03
DDE	1.4E-02	1.1E-03	1.2E-04	5.1E-03	8.6E+04	5.2E+02	9.8E-06	1.6E-09	5.1E-03	1.2E+06	2.6E+00
DDT	1.4E-02	1.1E-03	5.4E-05	2.2E-03	2.4E+05	1.4E+03	1.5E-06	2.4E-10	3.4E-03	3.2E+06	4.8E+00
Dibenzofuran	no data	--	5.3E-03	2.2E-01	no data	--	--	--	no data	--	--
Di-n-octyl phthalate	no data	--	1.4E-01	5.6E+00	nodata	--	--	--	no data	--	--
Endosulfan I/II	1.2E-02	9.0E-04	2.3E-05	9.5E-04	7.4E+02	4.4E+00	2.1E-04	2.8E-08	2.3E-01	3.0E+05	1.0E+00
Ethylbenzene	7.5E-02	5.9E-03	7.8E-03	3.2E-01	2.2E+02	1.3E+00	2.4E-01	2.0E-04	1.7E+02	3.4E+03	2.6E+02
Heptachlor	1.1E-02	8.7E-04	5.9E-04	2.4E-02	6.8E+03	4.1E+01	5.9E-04	7.6E-08	2.7E-01	1.8E+05	1.1E+01
MEK	8.1E-02	6.3E-03	1.1E-05	4.3E-04	1.4E+02	8.1E-01	5.3E-04	4.9E-07	2.4E+05	7.2E+04	2.2E+05
Methyl-N-butyl Ketone	7.8E-06	6.1E-07	4.4E-05	1.8E-03	7.4E+01	4.4E-01	4.0E-03	3.6E-10	6.0E+04	2.7E+06	3.2E+04
Methylene chloride	1.0E-01	7.9E-03	2.4E-03	9.7E-02	1.6E+01	9.6E-02	1.0E+00	1.0E-03	1.7E+04	1.4E+03	3.7E+03
Naphthalene	5.9E-02	4.6E-03	4.8E-04	2.0E-02	9.6E+02	5.8E+00	3.4E-03	2.3E-06	3.1E+01	3.3E+04	1.8E+02
N-Nitrosodi-N-propylamine	5.1E-02	4.0E-03	4.1E-05	1.7E-03	1.7E+01	1.0E-01	1.7E-02	9.7E-06	1.5E+04	1.6E+04	3.0E+03
PCB 1242	--	--	--	--	--	--	--	--	--	--	--
PCB 1254	1.0E-01	8.1E-03	1.6E-02	6.4E-01	4.1E+05	2.5E+03	2.6E-04	3.1E-07	5.7E-02	9.0E+04	1.4E+02
PCB 1260	1.0E-01	8.1E-03	7.1E-03	2.9E-01	2.6E+06	1.6E+04	1.8E-05	2.2E-08	8.0E-02	3.4E+05	1.3E+03
Pentachlorophenol	5.6E-02	4.4E-03	1.4E-05	5.8E-04	5.7E+02	3.4E+00	1.7E-04	1.1E-07	1.3E+01	1.5E+05	4.7E+01
Phenanthrene	no data	--	6.1E-03	2.5E-01	no data	--	--	--	no data	--	--
TCDD	no data	--	1.5E-04	6.3E-03	no data	--	--	--	no data	--	--
Tetrachloroethane	7.1E-02	5.5E-03	3.7E-04	1.5E-02	7.9E+01	4.7E-01	3.2E-02	2.6E-05	3.1E+03	9.8E+03	1.8E+03
Tetrachloroethylene	7.2E-02	5.6E-03	1.7E-02	7.1E-01	3.0E+02	1.8E+00	3.9E-01	3.1E-04	2.3E+02	2.7E+03	4.7E+02
Thiodigycol	--	--	--	--	--	--	--	--	--	--	--
Toluene	8.7E-02	6.8E-03	6.1E-03	2.5E-01	1.3E+02	7.9E-01	3.2E-01	3.0E-04	5.6E+02	2.7E+03	5.2E+02
TPHC	no data	--	no data	--	no data	--	--	--	no data	--	--
Trichloroethene	7.9E-02	6.2E-03	1.1E-02	4.3E-01	9.4E+01	5.6E-01	7.7E-01	6.3E-04	1.2E+03	1.8E+03	8.8E+02
Trichlorofluoromethane	8.7E-02	6.8E-03	9.7E-02	4.0E+00	1.5E+02	8.9E-01	4.5E+00	2.7E-03	1.1E+03	5.8E+02	1.9E+03
Xylene	7.8E-06	6.1E-07	5.3E-03	2.2E-01	7.4E+01	4.4E-01	4.8E-01	4.0E-08	5.6E+02	2.3E+05	3.3E+02

* refers to calculated value

Where available, source of H values is EPA 1994 Table 5-5, otherwise taken from Table 2.6-1 of Interim Report

Source of Koc, Di, and S values is EPA 1994 Table 3-2, Chemical-Specific Properties Used in SSL Calculations

Table 1-2 Derivation of Soil Risk-Based Screening Levels (RBSLs) for Residential Land-Use Scenario, Noncarcinogenic Endpoints

Exposed Population: Child residents, assuming 6-year childhood exposure

Exposure Pathway: Ingestion of soil, dermal contact with soil, inhalation of soil particulates, and vapor inhalation*

**vapor inhalation evaluated for volatile constituents only, as defined by chemicals with Henry's Law constants (H) greater than 10^{-5}*

Cumulative RBSL Equation: Cum-RBSL = 1 / [(1/SI-RBSL) + (1/DC-RBSL) + (1/INH-RBSL)]

where:
SI-RBSL = Soil Ingestion Risk-Based Screening Level
DC-RBSL = Dermal Contact Risk-Based Screening Level
INH-RBSL = Inhalation Risk-Based Screening Level

Soil Ingestion Component:

Soil Ingestion RBSL (SI-RBSL) in mg/kg =

$$\frac{THQ \times BW \times AT \times 365\ days/year \times RfDo}{EF \times ED \times 10^{-6}\ kg/mg \times IR_{soil}}$$

Dermal Contact Component:

Dermal Contact RBSL (DC-RBSL) in mg/kg =

$$\frac{THQ \times BW \times AT \times 365\ days/year \times RfDo}{EF \times ED \times 10^{-6}\ kg/mg \times SA \times AF \times RAF_d}$$

Inhalation Component:

Inhalation RBSL (INH-RBSL) in mg/kg =

$$\frac{THQ \times AT \times 365\ days/year}{EF \times ED \times [\,1/RfC * (1/VF + 1/PEF)]}$$

(include VF component only for volatile chemicals with $H > 10^{-5}$)

Parameter	Acronym		Assumed Value	Units
Target Hazard Quotient	THQ		1.0	unitless
Body Weight	BW		15	kg
Averaging Time	AT		6	years
Exposure Frequency	EF		350	days/year
Exposure Duration	ED		6	years
Oral reference dose	RfDo		chem-specific	mg/kg/day
Soil ingestion rate	IR_{soil}		200	mg/day
Skin surface area	SA		2,650	cm^2/day
Soil to skin adherence factor	AF		1.0	mg/cm^2
Dermal relative absorption factor	RAF_d	*inorganics:*	0.001	unitless
		organics:	0.05	unitless
Inhalation reference concentration	RfC		chem-specific	mg/m^3
Soil-to-air volatilization factor	VF		chem-specific	m^3/kg (for chemicals with $H > 10^{-5}$)
Particulate emission factor	PEF		6.79E+08	m^3/kg

Source of equations and input parameters: EPA 1994 w/ exception of dermal component

Table 1-2 Derivation of Soil RBSLs for Residential Land-Use Scenario, Noncarcinogenic Endpoints -- Inorganic Constituents

Constituent	RfD (mg/kg/day)	RfC (mg/m3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
Aluminum	1.00E+00	--	7.8E+04	5.9E+06	--	7.7E+04
Antimony	4.00E-04	--	3.1E+01	2.4E+03	--	3.1E+01
Arsenic	3.00E-04	--	2.3E+01	1.8E+03	--	2.3E+01
Barium	7.00E-02	5.00E-01	5.5E+03	4.1E+05	3.5E+08	5.4E+03
Beryllium	5.00E-03	--	3.9E+02	3.0E+04	--	3.9E+02
Cadmium	5.00E-04	2.00E-01	3.9E+01	3.0E+03	1.4E+08	3.9E+01
Chromium III	1.00E+00	2.00E-03	7.8E+04	5.9E+06	1.4E+06	7.3E+04
Chromium VI	5.00E-03	--	3.9E+02	3.0E+04	--	3.9E+02
Cobalt	6.00E-03	--	4.7E+02	3.5E+04	--	4.6E+02
Copper	4.00E-02	--	3.1E+03	2.4E+05	--	3.1E+03
Cyanide	2.00E-02	--	1.6E+03	1.2E+05	--	1.5E+03
Lead	--	--	--	--	--	--
Manganese	5.00E-03	5.00E-02	3.9E+02	3.0E+04	3.5E+07	3.9E+02
Mercury	3.00E-04	3.00E-01	2.3E+01	1.8E+03	2.1E+08	2.3E+01
Nickel	2.00E-02	--	1.6E+03	1.2E+05	--	1.5E+03
Selenium	5.00E-03	--	3.9E+02	3.0E+04	--	3.9E+02
Silver	5.00E-03	--	3.9E+02	3.0E+04	--	3.9E+02
Thallium	8.00E-05	--	6.3E+00	4.7E+02	--	6.2E+00
Vanadium	7.00E-03	--	5.5E+02	4.1E+04	--	5.4E+02
Zinc	3.00E-01	--	2.3E+04	1.8E+06	--	2.3E+04

-- No toxicity data available.

Table 1-2 Derivation of Soil RBSLs for Residential Land-Use Scenario,
Noncarcinogenic Endpoints -- Organic Non-Volatile Constituents

Constituent	H (atm-m^3/mol)	RfD (mg/kg/day)	RfC (mg/m^3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
2,4,6-Trichloroaniline	2.50E-06	--	--	--	--	--	--
2,4,6-Trinitrotoluene	4.60E-07	5.0E-04	--	3.9E+01	5.9E+01	--	2.4E+01
4-Cymene	--	--	--	--	--	--	--
4-Methylphenol	4.4E-07	5.0E-03	--	3.9E+02	5.9E+02	--	2.4E+02
Benzo(g,h,i)perylene	--	--	--	--	--	--	--
Benzo[a]anthracene	3.61E-06	--	--	--	--	--	--
Benzo[a]pyrene	8.37E-07	--	--	--	--	--	--
Benzo[b]fluoranthene	6.17E-06	--	--	--	--	--	--
Benzo[k]fluoranthene	1.70E-06	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	8.36E-06	2.0E-02	--	1.6E+03	2.4E+03	--	9.4E+02
Chrysene	1.21E-06	--	--	--	--	--	--
DDD	4.96E-06	--	--	--	--	--	--
Di-N-butyl phthalate	1.43E-06	1.0E-01	--	7.8E+03	1.2E+04	--	4.7E+03
Diethyl phthalate	2.15E-06	8.0E-01	--	6.3E+04	9.4E+04	--	3.8E+04
Dimethyl phthalate	2.15E-06	1.0E+01	--	7.8E+05	1.2E+06	--	4.7E+05
Dieldrin	2.67E-06	5.0E-05	--	3.9E+00	5.9E+00	--	2.4E+00
Dimethyl Disulfide	1.50E-06	--	--	--	--	--	--
DIMP	--	8.0E-02	--	6.3E+03	9.4E+03	--	3.8E+03
Endrin	1.19E-06	3.0E-04	--	2.3E+01	3.5E+01	--	1.4E+01
Fluoranthene	9.33E-06	4.0E-02	--	3.1E+03	4.7E+03	--	1.9E+03
Heptachlor epoxide	8.29E-06	1.3E-05	--	1.0E+00	1.5E+00	--	6.1E-01
Hexachlorobenzene	1.70E-03	8.0E-04	--	6.3E+01	9.4E+01	--	3.8E+01
HMX	--	5.0E-02	--	3.9E+03	5.9E+03	--	2.4E+03
IMPA	--	1.00E-01	--	7.8E+03	1.2E+04	--	4.7E+03
Indeno[1,2,3-cd]pyrene	2.40E-08	--	--	--	--	--	--
Lindane, alpha	6.79E-06	--	--	--	--	--	--
Lindane, beta	3.46E-07	--	--	--	--	--	--
Lindane, gamma	3.39E-06	3.00E-04	--	2.3E+01	3.5E+01	--	1.4E+01
Methoxychlor	6.33E-06	5.0E-03	--	3.9E+02	5.9E+02	--	2.4E+02
MPA	--	1.00E-01	--	7.8E+03	1.2E+04	--	4.7E+03
PCB 1248	3.60E-03	2.0E-05	--	1.6E+00	2.4E+00	--	9.4E-01
Prometon	--	1.50E-02	--	1.2E+03	1.8E+03	--	7.1E+02
Pyrene	8.27E-06	3.0E-02	--	2.3E+03	3.5E+03	--	1.4E+03
RDX	2.60E-11	3.0E-03	--	2.3E+02	3.5E+02	--	1.4E+02

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-2 Derivation of Soil RBSLs for Residential Land-Use Scenario, Noncarcinogenic Endpoints -- Organic Volatile Constituents

Constituent	H (atm-m^3/mol)	RfD (mg/kg/day)	RfC (mg/m^3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
1,1,2-Trichloroethane	1.00E-03	4.0E-03	--	3.1E+02	4.7E+02	--	1.9E+02
1,4-Dichlorobenzene	1.60E-03	2.4E-02	--	1.9E+03	2.8E+03	--	1.1E+03
2-Methylnaphthalene	5.80E-05	--	--	--	--	--	--
Acetone	2.88E-05	1.0E-01	--	7.8E+03	1.2E+04	--	4.7E+03
Aldrin	1.03E-04	3.0E-05	--	2.3E+00	3.5E+00	--	1.4E+00
Anthracene	1.11E-04	3.0E-01	--	2.3E+04	3.5E+04	--	1.4E+04
Benzene	5.47E-03	--	--	--	--	--	--
HCH, beta	--	--	--	--	--	--	--
Chlordane, a- and g-	6.65E-05	6.0E-05	--	4.7E+00	7.1E+00	--	2.8E+00
Chloroform	4.02E-03	1.0E-02	--	7.8E+02	1.2E+03	--	4.7E+02
DDE	1.24E-04	--	--	--	--	--	--
DDT	5.37E-05	5.0E-04	--	3.9E+01	5.9E+01	--	2.4E+01
Dibenzofuran	5.30E-03	4.0E-03	--	3.1E+02	4.7E+02	--	1.9E+02
Di-n-octyl phthalate	1.37E-01	2.0E-02	--	1.6E+03	2.4E+03	--	9.4E+02
Endosulfan I/II	2.31E-05	6.0E-03	--	4.7E+02	7.1E+02	--	2.8E+02
Ethylbenzene	7.75E-03	1.0E-01	1.0E+00	7.8E+03	1.2E+04	3.6E+03	2.0E+03
Heptachlor	5.87E-04	5.0E-04	--	3.9E+01	5.9E+01	--	2.4E+01
MEK	4.35E-05	6.0E-01	1.0E+00	4.7E+04	7.1E+04	7.5E+04	2.0E+04
Methyl-N-butyl Ketone	4.35E-05	8.0E-02	2.3E-02	6.3E+03	9.4E+03	6.3E+04	3.8E+03
Methylene chloride	2.37E-03	6.0E-02	--	4.7E+03	7.1E+03	--	2.8E+03
Naphthalene	4.80E-04	4.0E-03	1.4E-02	3.1E+02	4.7E+02	4.8E+02	1.4E+02
N-Nitrosodi-N-propylamine	4.14E-05	--	--	--	--	--	-- --
PCB 1242	--	--	--	--	--	--	-- --
PCB 1254	1.56E-02	2.0E-05	--	1.6E+00	2.4E+00	--	9.4E-01
PCB 1260	7.10E-03	--	--	--	--	--	--
Pentachlorophenol	1.42E-05	3.0E-02	--	2.3E+03	3.5E+03	--	1.4E+03
Phenanthrene	6.05E-03	--	--	--	--	--	--
TCDD	1.53E-04	--	--	--	--	--	--
Tetrachloroethane-1,1,2,2	3.72E-04	--	--	--	--	--	--
Tetrachloroethylene	1.73E-02	1.0E-02	--	7.8E+02	1.2E+03	--	4.7E+02
Thiodiglycol	--	--	--	--	--	--	-- --
Toluene	6.14E-03	2.0E-01	4.0E-01	1.6E+04	2.4E+04	1.1E+03	1.0E+03
TPHC	--	2.0E-02	--	1.6E+03	2.4E+03	--	9.4E+02
Trichloroethene	1.06E-02	6.0E-03	--	4.7E+02	7.1E+02	--	2.8E+02
Trichlorofluoromethane	9.70E-02	3.0E-01	--	2.3E+04	3.5E+04	--	1.4E+04
Xylene	5.25E-03	2.0E+00	--	1.6E+05	2.4E+05	--	9.4E+04

-- Toxicity data not applicable.

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-2 Derivation of Soil RBSLs for Residential Land-Use Scenario, Volatilization Factor (VF) and Soil Saturation Limit (SSL) Calculations

Volatilization Factor (VF) Equation

$VF = Q/C * (10^{-4} m^2/cm^2) * (3.14 * \alpha * T)^{1/2} / (2 * Dei * \theta_a * Kas)$

where:

$\alpha\ (cm^2/s) = (Dei * \theta_{a^{3.33}} / (\theta_a + ((\rho s)(1 - \theta_a) / Kas))$

$Dei\ (cm^2/s) = Di * (\theta_a^{3.33} / n^2)$

θ_a = n - w ρb = 0 28 Lair/Lsoil

n = 1 - (ρb/ρs) = 0 43 Lpore/Lsoil

Soil Saturation Limit (Csat) Equation

$Csat = S/\rho b * [(Kd * \rho b) + \theta_w + (H' * \theta a)]$

where:		Units
S = solubility in water	= chemical-specific	mg/L-water
ρb = dry soil bulk density	= 1 5	kg/L
θ_w = water-filled soil porosity	= 0 15	L water / L soil
w = average soil moisture content	= 0.1 or 10 percent	unitless

VF Input Parameter Definitions		Value	Units
VF = Volatilization Factor			m^3/kg
Q/C = inverse of the mean conc at the center of a 30-acre-square source	=	35 1	g/m^2-s per kg/m^3
T = exposure interval	=	9.5E+08	s
Dei = effective diffusivity	=	$Di * (\theta_a^{3.33}/n^2)$	cm^2/s
θ_a = air-filled soil porosity	=	0 28	Lair / Lsoil
Di = diffusivity in air	=	chemical-specific	cm^2/s
n = total soil porosity (for loam)	=	0 43	Lpore / Lsoil
w = average soil moisture content	=	0 10	cm3 water / g soil
ρb = dry soil bulk density		1 5	g/cm^3 or kg/L
ρs = soil particle density		2 65	g/cm^3
Kas = soil-air partition coefficient	=	H'/Kd	g-soil / cm^3-air
H = Henry's law constant	=	chemical-specific	$atm-m^3/mol$
H' = Henry's law constant, unitless	=	H * 41	unitless*
**41 is a units conversion factor (where units = mol/atm-m3)*			
Kd = soil-water partition coefficient	=	chemical-specific	cm^3/g or L/kg**
**or, in lieu of chem-specific data, Kd = Koc * foc*			
Koc = organic carbon partition coefficie	=	chem-specific	cm^3/g or L/kg
foc = organic carbon content of soil	=	0 006	g/g (0 6%)

Source of Equations and Default Input Parameters: EPA Draft Soil Screening Guidance (EPA/540/R-94/106, December 1994)

Chemical-Specific Volatilization Factors (VFs) and Soil Saturation Limit (Csat) Derivations

Parameter	Di (cm^2/s)	Dei * (cm^2/s)	H ($atm-m^3/mol$)	H' (unitless)	Koc (cm3/g)	Kd* (cm^3/g)	Kas * (g/cm3)	a * (cm^2/s)	S (mg L-water)	VF (m^3/kg)	Csat (mg/kg)
1,1,2-Trichloroethane	7 80E-02	6 1E-03	1 00E-03	4 1E-02	7 60E+01	4 56E-01	9 0E-02	7 9E-05	4 40E+03	5 6E+03	2 48E+03
1,4-Dichlorobenzene	1.30E-01	1.0E-02	1 60E-03	6 6E-02	1 20E+03	7.20E+00	9 1E-03	1 4E-05	2 00E+02	1 4E+04	1 46E+03
2-Methylnaphthalene	5 80E-05	4.5E-06	5 80E-05	2 4E-03	no data	--	--	--	no data	--	--
Acetone	1 24E-01	9 7E-03	2 88E-05	1 2E-03	4 60E-01	2 76E-03	4 3E-01	5 7E-04	6 04E+05	2 0E+03	6 22E+04
Aldrin	1 32E-02	1 0E-03	1 03E-04	4 2E-03	4 84E+04	2 90E+02	1 5E-05	2 2E-09	7 84E-02	1 1E+06	2 28E+01
Anthracene	3 24E-02	2 5E-03	1 11E-04	4 6E-03	2 12E+04	1 27E+02	3 6E-05	1 3E-08	5 37E-02	4 4E+05	6 84E+00
Benzene	8 70E-02	6 8E-03	5.47E-03	2 2E-01	5.70E+01	3 42E-01	6 6E-01	6 0E-04	1 80E+03	1 9E+03	8 71E+02
HCH, beta	no data	--	no data	--	no data	--	--	--	no data	--	--
Chlordane, a- and g-	1 18E-02	9.2E-04	6 65E-05	2 7E-03	5 13E+04	3 08E+02	8 9E-06	1 2E-09	2 19E-01	1 5E+06	6 74E+01
Chloroform	1.04E-01	8 1E-03	4 02E-03	1 6E-01	5 60E+01	3 36E-01	4 9E-01	5 4E-04	7 96E+03	2 0E+03	3.72E+03
DDE	1 44E-02	1 1E-03	1 24E-04	5 1E-03	8 64E+04	5 18E-02	9 8E-06	1 6E-09	5 10E-03	1 2E+06	2 64E+00
DDT	1.37E-02	1 1E-03	5 37E-05	2 2E-03	2 37E+05	1 42E+03	1 5E-06	2 4E-10	3 41E-03	3 2E+06	4 85E+00
Dibenzofuran	no data	--	5 30E-03	2 2E-01	no data	--	--	--	no data	--	--
Di-n-octyl phthalate	no data	--	1 4E-01	5 6E+00	nodata	--	--	--	no data	--	--
Endosulfan I/II	1 15E-02	9 0E-04	2 31E-05	9 5E-04	7 38E+02	4 43E+00	2 1E-04	2 8E-08	2 31E-01	3 0E+05	1 05E+00
Ethylbenzene	7 50E-02	5 9E-03	7 75E-03	3 2E-01	2 21E+02	1 33E+00	2 4E-01	2 0E-04	1 73E+02	3 4E+03	2 57E+02
Heptachlor	1 12E-02	8 7E-04	5 87E-04	2 4E-02	6 81E+03	4 09E+01	5 9E-04	7 6E-08	2 73E-01	1 8E+05	1 12E+01
MEK	8 08E-02	6 3E-03	1 05E-05	4 3E-04	1 35E+02	8 10E-01	5 3E-04	4 9E-07	2 39E+05	7 2E+04	2 18E+05
Methyl-N-butyl Ketone	7 80E-06	6 1E-07	4 35E-05	1 8E-03	7 40E+01	4 44E-01	4 0E-03	3 6E-10	5 95E+04	2 7E+06	3 24E+04
Methylene chloride	1 01E-01	7 9E-03	2 37E-03	9 7E-02	1 60E+01	9 60E-02	1 0E+00	1 0E-03	1 74E+04	1 4E+03	3 73E+03
Naphthalene	5 9E-02	4 6E-03	4 8E-04	2 0E-02	9 6E+02	5.8E+00	3 4E-03	2 3E-06	3 1E+01	3 3E+04	1 8E+02
N-Nitrosodi-N-propylamine	5.13E-02	4 0E-03	4 14E-05	1 7E-03	1.70E+01	1 02E-01	1 7E-02	9 7E-06	1 46E+04	1 6E+04	2 95E+03
PCB 1242	--	--	--	--	--	--	--	--	--	--	--
PCB 1254	1.04E-01	8 1E-03	1 56E-02	6 4E-01	4.10E+05	2 46E+03	2 6E-04	3 1E-07	5 70E-02	9 0E+04	1 40E+02
PCB 1260	1.04E-01	8 1E-03	7 10E-03	2.9E-01	2 63E+06	1 58E+04	1 8E-05	2 2E-08	8 00E-02	3 4E+05	1 26E+03
Pentachlorophenol	5.60E-02	4 4E-03	1 42E-05	5 8E-04	5.67E+02	3 40E+00	1 7E-04	1 1E-07	1 34E+01	1 5E+05	4 69E+01
Phenanthrene	no data	--	6 05E-03	2 5E-01	no data	--	--	--	no data	--	--
TCDD	no data	--	1.53E-04	6 3E-03	no data	--	--	--	no data	--	--
Tetrachloroethane-1,1,2,2	7.10E-02	5 5E-03	3 72E-04	1 5E-02	7 90E+01	4 74E-01	3 2E-02	2 6E-05	3 07E+03	9 8E+03	1 77E+03
Tetrachloroethylene	7 20E-02	5 6E-03	1 73E-02	7 1E-01	3 00E+02	1 80E+00	3 9E-01	3 1E-04	2 32E+02	2 7E+03	4 72E+02
Thiodiglycol	--	--	--	--	--	--	--	--	--	--	--
Toluene	8 70E-02	6 8E-03	6 14E-03	2 5E-01	1 31E+02	7 86E-01	3 2E-01	3 0E-04	5 58E+02	2 7E+03	5 21E+02
TPHC	no data	--	no data	--	no data	--	--	--	no data	--	--
Trichloroethene	7 90E-02	6.2E-03	1.06E-02	4.3E-01	9 40E+01	5.64E-01	7 7E-01	6 3E-04	1 18E+03	1 8E+03	8 79E+02
Trichlorofluoromethane	8 70E-02	6 8E-03	9 70E-02	4 0E+00	1 48E+02	8 88E-01	4 5E+00	2 7E-03	1 08E+03	5 8E+02	1 87E+03
Xylene	7 8E-06	6 1E-07	5.3E-03	2 2E-01	7 4E+01	4 4E-01	4 8E-01	4 0E-08	5 6E+02	2 3E+05	3 3E+02

* refers to calculated value

Where available source of H values is EPA 1994, Table 5-5, otherwise taken from Table 2 6-1 of Interim Report

Source of Koc, Di and S values is EPA 1994, Table 3-2 Chemical-Specific Properties Used in SSL Calculations

Table 1-3 Derivation of Soil Risk-Based Screening Levels (RBSLs) for Industrial Land-Use Scenario, Carcinogenic Endpoints

Exposed Population: Adult workers under industrial land-use scenario

Exposure Pathway: Ingestion of soil, dermal contact with soil, inhalation of soil particulates, and vapor inhalation*

**vapor inhalation evaluated for volatile constituents only, as defined by chemicals with Henry's Law constants (H) greater than 10^{-5}*

Cumulative RBSL Equation: Cum-RBSL = 1 / [(1/SI-RBSL) + (1/DC-RBSL) + (1/INH-RBSL)]

where:
SI-RBSL = Soil Ingestion Risk-Based Screening Level
DC-RBSL = Dermal Contact Risk-Based Screening Level
INH-RBSL = Inhalation Risk-Based Screening Level

Soil Ingestion Component:

Soil Ingestion RBSL (SI-RBSL) in mg/kg =

$$\frac{TR \times BW \times ATc \times 365\ days/year}{EF \times ED \times SFo \times 10^{-6}\ kg/mg \times IR_{soil}}$$

Dermal Contact Component:

Dermal Contact RBSL (DC-RBSL) in mg/kg =

$$\frac{TR \times BW \times ATc \times 365\ days/year}{EF \times ED \times SFo \times 10^{-6}\ kg/mg \times SA \times AF \times RAF_d}$$

Inhalation Component:

Inhalation RBSL (INH-RBSL) in mg/kg =

$$\frac{TR \times ATc \times 365\ days/year}{EF \times ED \times URF \times 1{,}000\ ug/mg \times [1/VF + 1/PEF]}$$

(include VF component only for volatile chemicals with $H > 10^{-5}$)

Parameter	Acronym		Assumed Value	Units
Target Cancer Risk	TR		1.0E-06	unitless
Body Weight	BW		70	kg
Averaging Time (carcinogens)	ATc		70	years
Exposure Frequency	EF		250	days/year
Exposure Duration	ED		25	years
Oral cancer slope factor	SFo		chem-specific	$(mg/kg/day)^{-1}$
Soil ingestion rate	IR_{soil}		50	mg/day
Skin surface area	SA		5,800	cm^2/day
Soil to skin adherence factor	AF		1.0	mg/cm^2
Dermal relative absorption factor	RAF_d	*inorganics:*	0.001	unitless
		organics:	0.05	unitless
Inhalation unit risk factor	URF		chem-specific	$(ug/m^3)^{-1}$
Soil-to-air volatilization factor	VF		chem-specific	m^3/kg (for chemicals with $H > 10^{-5}$)
Particulate emission factor	PEF		6.79E+08	m^3/kg

Source of equations and input parameters: EPA 1994 w/ exception of dermal component

Table 1-3 Derivation of Soil RBSLs for Industrial Land-Use Scenario,
Carcinogenic Endpoints -- Inorganic Constituents

Constituent	SFo $(mg/kg/day)^{-1}$	URF $(ug/m^3)^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
Aluminum	--	--	--	--	--	--
Antimony	--	--	--	--	--	--
Arsenic	1.75E+00	4.30E-03	3.3E+00	2.8E+01	6.5E+02	2.9E+00
Barium	--	--	--	--	--	--
Beryllium	4.30E+00	2.40E-03	1.3E+00	1.1E+01	1.2E+03	1.2E+00
Cadmium	--	1.80E-03	--	--	1.5E+03	1.5E+03
Chromium III	--	--	--	--	--	--
Chromium VI	--	1.20E-02	--	--	2.3E+02	2.3E+02
Cobalt	--	--	--	--	--	--
Copper	--	--	--	--	--	--
Cyanide	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Manganese	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Nickel	--	--	--	--	--	--
Selenium	--	--	--	--	--	--
Silver	--	--	--	--	--	--
Thallium	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--
Zinc	--	--	--	--	--	--

-- Carcinogenic endpoint not applicable, or toxicity data not available or pending.

Table 1-3 Derivation of Soil RBSLs for Industrial Land-Use Scenario,
Carcinogenic Endpoints -- Organic Non-Volatile Constituents

Constituent	H (atm-m^3/mol)	SFo (mg/kg/day)$^{-1}$	URF (ug/m^3)$^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
2,4,6-Trichloroaniline	2.50E-06	3.4E-02	--	1.7E+02	2.9E+01	--	2.5E+01
2,4,6-Trinitrotoluene	4.60E-07	3.0E-02	--	1.9E+02	3.3E+01	--	2.8E+01
4-Cymene	--	--	--	--	--	--	--
4-Methylphenol	4.4E-07	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--
Benzo[a]anthracene	3.61E-06	7.3E-01	--	7.8E+00	1.4E+00	--	1.2E+00
Benzo[a]pyrene	8.37E-07	7.3E+00	--	7.8E-01	1.4E-01	--	1.2E-01
Benzo[b]fluoranthene	6.17E-06	7.3E-01	--	7.8E+00	1.4E+00	--	1.2E+00
Benzo[k]fluoranthene	1.70E-06	7.3E-02	--	7.8E+01	1.4E+01	--	1.2E+01
Bis(2-ethylhexyl) phthalate	8.36E-06	1.4E-02	--	4.1E+02	7.0E+01	--	6.0E+01
Chrysene	1.21E-06	7.3E-03	--	7.8E+02	1.4E+02	--	1.2E+02
DDD	4.96E-06	2.4E-01	--	2.4E+01	4.1E+00	--	3.5E+00
Di-N-butyl phthalate	1.43E-06	--	--	--	--	--	--
Diethyl phthalate	2.15E-06	--	--	--	--	--	--
Dimethyl phthalate	2.15E-06	--	--	--	--	--	--
Dieldrin	2.67E-06	1.6E+01	4.6E-03	3.6E-01	6.2E-02	6.0E+02	5.3E-02
Dimethyl Disulfide	1.50E-06	--	--	--	--	--	--
DIMP	--	--	--	--	--	--	--
Dioctyl Adipate	5.00E-11	--	--	--	--	--	--
Endrin	1.19E-06	--	--	--	--	--	--
Fluoranthene	9.33E-06	--	--	--	--	--	--
Heptachlor epoxide	8.29E-06	9.1E+00	2.6E-03	6.3E-01	1.1E-01	1.1E+03	9.2E-02
HMX	--	--	--	--	--	--	--
Hexachlorobenzene	1.70E-03	1.6E+00	--	3.6E+00	6.2E-01	--	5.3E-01
IMPA	--	--	--	--	--	--	--
Indeno[1,2,3-c,d]pyrene	2.40E-08	7.3E-03	--	7.8E+02	1.4E+02	--	1.2E+02
Lindane, alpha	6.79E-06	6.3E+00	1.8E-03	9.1E-01	1.6E-01	1.5E+03	1.3E-01
Lindane, beta	3.46E-07	1.8E+00	5.3E-04	3.2E+00	5.5E-01	5.2E+03	4.7E-01
Lindane, gamma	3.39E-06	--	--	--	--	--	--
Methoxychlor	6.33E-06	--	--	--	--	--	--
MPA	--	--	--	--	--	--	--
PCB 1248	3.60E-03	2.0E+00	--	2.9E+00	4.9E-01	--	4.2E-01
Prometon	--	--	--	--	--	--	--
Pyrene	8.27E-06	--	--	--	--	--	--
RDX	2.60E-11	1.1E-01	--	5.2E+01	9.0E+00	--	7.7E+00

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-3 Derivation of Soil RBSLs for Industrial Land-Use Scenario,
Carcinogenic Endpoints -- Organic Volatile Constituents

Constituent	H (atm-m^3/mol)	SFo $(mg/kg/day)^{-1}$	URF $(ug/m^3)^{-1}$	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
1,1,2-Trichloroethane	1.00E-03	5.7E-02	1.6E-05	1.0E+02	1.7E+01	1.4E+00	1.3E+00
1,4-Dichlorobenzene	1.60E-03	2.4E-02	--	2.4E+02	4.1E+01	--	3.5E+01
2-Methylnaphthalene	5.80E-05	--	--	--	--	--	--
Acetone	2.88E-05	--	--	--	--	--	--
Aldrin	1.03E-04	1.7E+01	4.9E-03	3.4E-01	5.8E-02	8.9E-01	4.7E-02
Anthracene	1.11E-04	--	--	--	--	--	--
Benzene	5.47E-03	2.9E-02	8.3E-06	2.0E+02	3.4E+01	9.2E-01	9.0E-01
HCH, beta	--	--	--	--	--	--	--
Chlordane, a- and g-	6.65E-05	1.3E+00	3.7E-04	4.4E+00	7.6E-01	1.6E+01	6.2E-01
Chloroform	4.02E-03	6.1E-03	2.3E-05	9.4E+02	1.6E+02	3.6E-01	3.6E-01
DDE	1.24E-04	3.4E-01	--	1.7E+01	2.9E+00	--	2.5E+00
DDT	5.37E-05	3.4E-01	9.7E-05	1.7E+01	2.9E+00	1.4E+02	2.4E+00
Dibenzofuran	5.30E-03	--	--	--	--	--	--
Di-n-octyl phthalate	1.37E-01	--	--	--	--	--	--
Endosulfan I/II	2.31E-05	--	--	--	--	--	--
Ethylbenzene	7.75E-03	--	--	--	--	--	--
Heptachlor	5.87E-04	4.5E+00	1.3E-03	1.3E+00	2.2E-01	5.7E-01	1.4E-01
MEK	4.35E-05	--	--	--	--	--	--
Methyl-N-butyl Ketone	4.35E-05	--	--	--	--	--	--
Methylene chloride	2.37E-03	7.5E-03	4.7E-07	7.6E+02	1.3E+02	1.2E+01	1.1E+01
Naphthalene	4.80E-04	--	--	--	--	--	--
N-Nitrosodi-N-propylamine	4.14E-05	7.0E+00	--	8.2E-01	1.4E-01	--	1.2E-01
PCB 1242	--	--	--	--	--	--	--
PCB 1254	1.56E-02	--	--	--	--	--	--
PCB 1260	7.10E-03	7.7E+00	--	7.4E-01	1.3E-01	--	1.1E-01
Pentachlorophenol	1.42E-05	1.2E-01	--	4.8E+01	8.2E+00	--	7.0E+00
Phenanthrene	6.05E-03	--	--	--	--	--	--
TCDD	1.53E-04	1.6E+05	3.3E+01	3.7E-05	6.3E-06	--	5.4E-06
Tetrachloroethane-1,1,2,2	3.72E-04	2.0E-01	5.8E-05	2.9E+01	4.9E+00	6.9E-01	5.9E-01
Tetrachloroethylene	1.73E-02	5.2E-02	5.7E-07	1.1E+02	1.9E+01	1.9E+01	8.8E+00
Thiodiglycol	--	--	--	--	--	--	--
Toluene	6.14E-03	--	--	--	--	--	--
TPHC	--	--	--	--	--	--	--
Trichloroethene	1.06E-02	1.1E-02	1.7E-06	5.2E+02	9.0E+01	4.3E+00	4.1E+00
Trichlorofluoromethane	9.70E-02	--	--	--	--	--	--
Xylene	5.25E-03	--	--	--	--	--	--

-- Carcinogenic endpoint not applicable.

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-3 Derivation of Soil RBSLs for Industrial Land-Use Scenario, Carcinogenic Endpoints -- VF and SSL Calculations

Volatilization Factor (VF) Equation

$VF = Q/C * (10^{-4} m^2/cm^2) * (3.14 * \alpha * T)^{1/2} / (2 * Dei * \theta_a * Kas)$

where:

$\alpha\ (cm^2/s) = (Dei * \theta_a) / (\theta_a + ((\rho s)(1 - \theta_a) / Kas))$

$Dei\ (cm^2/s) = Di * (\theta_a^{3.33} / n^2)$

θ_a = n - w ρb = 0.28 Lair/Lsoil

n = 1 - (ρb/ρs) = 0.43 Lpore/Lsoil

Soil Saturation Limit (Csat) Equation

$Csat = S/\rho b * [(Kd * \rho b) + \theta_w + (H' * \theta a)]$

where:		Units
S = solubility in water	= chemical-specific	mg/L-water
ρb = dry soil bulk density	= 1.5E+00	kg/L
θ_w = water-filled soil porosity	= 1.5E-01	L water / L soil
w = average soil moisture content	= 0.1 or 10 percent	unitless

VF Input Parameter Definitions		**Value**	**Units**
VF = Volatilization Factor			m^3/kg
Q/C = inverse of the mean conc at the center of a 30-acre-square source	=	3.5E+01	g/m^2-s per kg/m^3
T = exposure interval	=	9.5E+08	s
Dei = effective diffusivity	=	$Di * (\theta_a^{3.33} / n^2)$	cm^2/s
θ_a = air-filled soil porosity	=	2.8E-01	Lair / Lsoil
Di = diffusivity in air	=	chemical-specific	cm^2/s
n = total soil porosity (for loam)	=	4.3E-01	Lpore / Lsoil
w = average soil moisture content	=	1.0E-01	cm^3 water / g soil
ρb = dry soil bulk density		1.5E+00	g/cm^3 or kg/L
ρs = soil particle density		2.7E+00	g/cm^3
Kas = soil-air partition coefficient	=	H'/Kd	g-soil / cm^3-air
H = Henry's law constant	=	chemical-specific	atm-m^3/mol
H' = Henry's law constant, unitless	=	H * 41	unitless*
**41 is a units conversion factor (where units = mol/atm-m^3)*			
Kd = soil-water partition coefficient	=	chemical-specific	cm^3/g or L/kg**
***or, in lieu of chem-specific data, Kd = Koc * foc*			
Koc = organic carbon partition coefficien	=	chem-specific	cm^3/g or L/kg
foc = organic carbon content of soil	=	6.0E-03	g/g (0.6%)

Source of Equations and Default Input Parameters: EPA Draft Soil Screening Guidance (EPA/540/R-94/106, December 1994)

Chemical-Specific Volatilization Factors (VFs) and Soil Saturation Limit (Csat) Derivations

Parameter	Di (cm^2/s)	Dei * (cm^2/s)	H (atm-m^3/mol)	H' (unitless)	Koc (cm^3/g)	Kd* (cm^3/g)	Kas * (g/cm^3)	a * (cm^2/s)	S (mg/L-water)	VF (m^3/kg)	Csat (mg/kg)
1,1,2-Trichloroethane	7.8E-02	6.1E-03	1.0E-03	4.1E-02	7.6E+01	4.6E-01	9.0E-02	7.9E-05	4.4E+03	5.6E+03	2.5E+03
1,4-Dichlorobenzene	1.3E-01	1.0E-02	1.6E-03	6.6E-02	1.2E+03	7.2E+00	9.1E-03	1.4E-05	2.0E+02	1.4E+04	1.5E+03
2-Methylnaphthalene	5.8E-05	4.5E-06	5.8E-05	2.4E-03	no data	–	–	–	no data	–	–
Acetone	1.2E-01	9.7E-03	2.9E-05	1.2E-03	4.6E-01	2.8E-03	4.3E-01	5.7E-04	6.0E+05	2.0E+03	6.2E+04
Aldrin	1.3E-02	1.0E-03	1.0E-04	4.2E-03	4.8E+04	2.9E+02	1.5E-05	2.2E-09	7.8E-02	1.1E+06	2.3E+01
Anthracene	3.2E-02	2.5E-03	1.1E-04	4.6E-03	2.1E+04	1.3E+02	3.6E-05	1.3E-08	5.4E-02	4.4E+05	6.8E+00
Benzene	8.7E-02	6.8E-03	5.5E-03	2.2E-01	5.7E+01	3.4E-01	6.6E-01	6.0E-04	1.8E+03	1.9E+03	8.7E+02
HCH, beta	no data	–	no data	–	no data	–	–	–	no data	–	–
Chlordane, a- and g-	1.2E-02	9.2E-04	6.7E-05	2.7E-03	5.1E+04	3.1E+02	8.9E-06	1.2E-09	2.2E-01	1.5E+06	6.7E+01
Chloroform	1.0E-01	8.1E-03	4.0E-03	1.6E-01	5.6E+01	3.4E-01	4.9E-01	5.4E-04	8.0E+03	2.0E+03	3.7E+03
DDE	1.4E-02	1.1E-03	1.2E-04	5.1E-03	8.6E+04	5.2E+02	9.8E-06	1.6E-09	5.1E-03	1.2E+06	2.6E+00
DDT	1.4E-02	1.1E-03	5.4E-05	2.2E-03	2.4E+05	1.4E+03	1.5E-06	2.4E-10	3.4E-03	3.2E+06	4.8E+00
Dibenzofuran	no data	–	5.3E-03	2.2E-01	no data	–	–	–	no data	–	–
Di-n-octyl phthalate	no data	–	1.4E-01	5.6E+00	nodata	–	–	–	no data	–	–
Endosulfan I/II	1.2E-02	9.0E-04	2.3E-05	9.5E-04	7.4E+02	4.4E+00	2.1E-04	2.8E-08	2.3E-01	3.0E+05	1.0E+00
Ethylbenzene	7.5E-02	5.9E-03	7.8E-03	3.2E-01	2.2E+02	1.3E+00	2.4E-01	2.0E-04	1.7E+02	3.4E+03	2.6E+02
Heptachlor	1.1E-02	8.7E-04	5.9E-04	2.4E-02	6.8E+03	4.1E+01	5.9E-04	7.6E-08	2.7E-01	1.8E+05	1.1E+01
MEK	8.1E-02	6.3E-03	1.1E-05	4.3E-04	1.4E+02	8.1E-01	5.3E-04	4.9E-07	2.4E+05	7.2E+04	2.2E+05
Methyl-N-butyl Ketone	7.8E-06	6.1E-07	4.4E-05	1.8E-03	7.4E+01	4.4E-01	4.0E-03	3.6E-10	6.0E+04	2.7E+06	3.2E+04
Methylene chloride	1.0E-01	7.9E-03	2.4E-03	9.7E-02	1.6E+01	9.6E-02	1.0E+00	1.0E-03	1.7E+04	1.4E+03	3.7E+03
Naphthalene	5.9E-02	4.6E-03	4.8E-04	2.0E-02	9.6E+02	5.8E+00	3.4E-03	2.3E-06	3.1E+01	3.3E+04	1.8E+02
N-Nitrosodi-N-propylamine	5.1E-02	4.0E-03	4.1E-05	1.7E-03	1.7E+01	1.0E-01	1.7E-02	9.7E-06	1.5E+04	1.6E+04	3.0E+03
PCB 1242	–	–	–	–	–	–	–	–	–	–	–
PCB 1254	1.0E-01	8.1E-03	1.6E-02	6.4E-01	4.1E+05	2.5E+03	2.6E-04	3.1E-07	5.7E-02	9.0E+04	1.4E+02
PCB 1260	1.0E-01	8.1E-03	7.1E-03	2.9E-01	2.6E+06	1.6E+04	1.8E-05	2.2E-08	8.0E-02	3.4E+05	1.3E+03
Pentachlorophenol	5.6E-02	4.4E-03	1.4E-05	5.8E-04	5.7E+02	3.4E+00	1.7E-04	1.1E-07	1.3E+01	1.5E+05	4.7E+01
Phenanthrene	no data	–	6.1E-03	2.5E-01	no data	–	–	–	no data	–	–
TCDD	no data	–	1.5E-04	6.3E-03	no data	–	–	–	no data	–	–
Tetrachloroethane	7.1E-02	5.5E-03	3.7E-04	1.5E-02	7.9E+01	4.7E-01	3.2E-02	2.6E-05	3.1E+03	9.8E+03	1.8E+03
Tetrachloroethylene	7.2E-02	5.6E-03	1.7E-02	7.1E-01	3.0E+02	1.8E+00	3.9E-01	3.1E-04	2.3E+02	2.7E+03	4.7E+02
Thiodiglycol	–	–	–	–	–	–	–	–	–	–	–
Toluene	8.7E-02	6.8E-03	6.1E-03	2.5E-01	1.3E+02	7.9E-01	3.2E-01	3.0E-04	5.6E+02	2.7E+03	5.2E+02
TPHC	no data	–	no data	–	no data	–	–	–	no data	–	–
Trichloroethene	7.9E-02	6.2E-03	1.1E-02	4.3E-01	9.4E+01	5.6E-01	7.7E-01	6.3E-04	1.2E+03	1.8E+03	8.8E+02
Trichlorofluoromethane	8.7E-02	6.8E-03	9.7E-02	4.0E+00	1.5E+02	8.9E-01	4.5E+00	2.7E-03	1.1E+03	5.8E+02	1.9E+03
Xylene	7.8E-06	6.1E-07	5.3E-03	2.2E-01	7.4E+01	4.4E-01	4.8E-01	4.0E-08	5.6E+02	2.3E+05	3.3E+02

* refers to calculated value

Where available, source of H values is EPA 1994 Table 5-5, otherwise taken from Table 2.6-1 of Interim Report

Source of Koc, Di, and S values is EPA 1994 Table 3-2, Chemical-Specific Properties Used in SSL Calculations

Table 1-4 Derivation of Soil Risk-Based Screening Levels (RBSLs) for Industrial Land-Use Scenario, Noncarcinogenic Endpoints

Exposed Population: Adult workers under industrial land-use scenario

Exposure Pathway: Ingestion of soil, dermal contact with soil, inhalation of soil particulates, and vapor inhalation*

**vapor inhalation evaluated for volatile constituents only, as defined by chemicals with Henry's Law constants (H) greater than 10^{-5}*

Cumulative RBSL Equation: Cum-RBSL = 1 / [(1/SI-RBSL) + (1/DC-RBSL) + (1/INH-RBSL)]

where:
SI-RBSL = Soil Ingestion Risk-Based Screening Level
DC-RBSL = Dermal Contact Risk-Based Screening Level
INH-RBSL = Inhalation Risk-Based Screening Level

Soil Ingestion Component:

Soil Ingestion RBSL (SI-RBSL) in mg/kg =

$$\frac{THQ \times BW \times AT \times 365\ days/year \times RfDo}{EF \times ED \times 10^{-6}\ kg/mg \times IR_{soil}}$$

Dermal Contact Component:

Dermal Contact RBSL (DC-RBSL) in mg/kg =

$$\frac{THQ \times BW \times AT \times 365\ days/year \times RfDo}{EF \times ED \times 10^{-6}\ kg/mg \times SA \times AF \times RAF_d}$$

Inhalation Component:

Inhalation RBSL (INH-RBSL) in mg/kg =

$$\frac{THQ \times AT \times 365\ days/year}{EF \times ED \times [\ 1/RfC * (1/VF + 1/PEF)]}$$

(include VF component only for volatile chemicals with $H > 10^{-5}$)

Parameter	Acronym		Assumed Value	Units
Target Hazard Quotient	THQ		1.0	unitless
Body Weight	BW		70	kg
Averaging Time	AT		25	years
Exposure Frequency	EF		250	days/year
Exposure Duration	ED		25	years
Oral reference dose	RfDo		chem-specific	mg/kg/day
Soil ingestion rate	IR_{soil}		50	mg/day
Skin surface area	SA		5,800	cm^2/day
Soil to skin adherence factor	AF		1.0	mg/cm^2
Dermal relative absorption factor	RAF_d	*inorganics:*	0.001	unitless
		organics:	0.05	unitless
Inhalation reference concentration	RfC		chem-specific	mg/m^3
Soil-to-air volatilization factor	VF		chem-specific	m^3/kg (for chemicals with $H > 10^{-5}$)
Particulate emission factor	PEF		6.79E+08	m^3/kg

Source of equations and input parameters: EPA 1994 w/ exception of dermal component

Table 1-4 Derivation of Soil RBSLs for Industrial Land-Use Scenario,
Noncarcinogenic Endpoints -- Inorganic Constituents

Constituent	RfD (mg/kg/day)	RfC (mg/m3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
Aluminum	1.00E+00	--	2.0E+06	1.8E+07	--	1.8E+06
Antimony	4.00E-04	--	8.2E+02	7.0E+03	--	7.3E+02
Arsenic	3.00E-04	--	6.1E+02	5.3E+03	--	5.5E+02
Barium	7.00E-02	5.00E-01	1.4E+05	1.2E+06	--	1.3E+05
Beryllium	5.00E-03	--	1.0E+04	8.8E+04	--	9.2E+03
Cadmium	5.00E-04	2.00E-01	1.0E+03	8.8E+03	--	9.2E+02
Chromium III	1.00E+00	2.00E-03	2.0E+06	1.8E+07	--	1.8E+06
Chromium VI	5.00E-03	--	1.0E+04	8.8E+04	--	9.2E+03
Cobalt	6.00E-03	--	1.2E+04	1.1E+05	--	1.1E+04
Copper	4.00E-02	--	8.2E+04	7.0E+05	--	7.3E+04
Cyanide	2.00E-02	--	4.1E+04	3.5E+05	--	3.7E+04
Lead	--	--	--	--	--	--
Manganese	5.00E-03	5.00E-02	1.0E+04	8.8E+04	--	9.2E+03
Mercury	3.00E-04	3.00E-01	6.1E+02	5.3E+03	--	5.5E+02
Nickel	2.00E-02	--	4.1E+04	3.5E+05	--	3.7E+04
Selenium	5.00E-03	--	1.0E+04	8.8E+04	--	9.2E+03
Silver	5.00E-03	--	1.0E+04	8.8E+04	--	9.2E+03
Thallium	8.00E-05	--	1.6E+02	1.4E+03	--	1.5E+02
Vanadium	7.00E-03	--	1.4E+04	1.2E+05	--	1.3E+04
Zinc	3.00E-01	--	6.1E+05	5.3E+06	--	5.5E+05

-- No toxicity data available.

Table 1-4 Derivation of Soil RBSLs for Industrial Land-Use Scenario, Noncarcinogenic Endpoints -- Organic Non-Volatile Constituents

Constituent	H ($atm\text{-}m^3/mol$)	RfD (mg/kg/day)	RfC (mg/m^3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
2,4,6-Trichloroaniline	2.50E-06	--	--	--	--	--	--
2,4,6-Trinitrotoluene	4.60E-07	5.0E-04	--	1.0E+03	1.8E+02	--	1.5E+02
4-Cymene	--	--	--	--	--	--	--
4-Methylphenol	4.4E-07	5.0E-03	--	1.0E+04	1.8E+03	--	1.5E+03
Benzo(g,h,i)perylene	--	--	--	--	--	--	--
Benzo[a]anthracene	3.61E-06	--	--	--	--	--	--
Benzo[a]pyrene	8.37E-07	--	--	--	--	--	--
Benzo[b]fluoranthene	6.17E-06	--	--	--	--	--	--
Benzo[k]fluoranthene	1.70E-06	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	8.36E-06	2.0E-02	--	4.1E+04	7.0E+03	--	6.0E+03
Chrysene	1.21E-06	--	--	--	--	--	--
DDD	4.96E-06	--	--	--	--	--	--
Di-N-butyl phthalate	1.43E-06	1.0E-01	--	2.0E+05	3.5E+04	--	3.0E+04
Diethyl phthalate	2.15E-06	8.0E-01	--	1.6E+06	2.8E+05	--	2.4E+05
Dimethyl phthalate	2.15E-06	1.0E+01	--	2.0E+07	3.5E+06	--	3.0E+06
Dieldrin	2.67E-06	5.0E-05	--	1.0E+02	1.8E+01	--	1.5E+01
Dimethyl Disulfide	1.50E-06	--	--	--	--	--	--
DIMP	--	8.0E-02	--	1.6E+05	2.8E+04	--	2.4E+04
Endrin	1.19E-06	3.0E-04	--	6.1E+02	1.1E+02	--	9.0E+01
Fluoranthene	9.33E-06	4.0E-02	--	8.2E+04	1.4E+04	--	1.2E+04
Heptachlor epoxide	8.29E-06	1.3E-05	--	2.7E+01	4.6E+00	--	3.9E+00
Hexachlorobenzene	1.70E-03	8.0E-04	--	1.6E+03	2.8E+02	--	2.4E+02
HMX	--	5.0E-02	--	1.0E+05	1.8E+04	--	1.5E+04
IMPA	--	1.00E-01	--	2.0E+05	3.5E+04	--	3.0E+04
Indeno[1,2,3-cd]pyrene	2.40E-08	--	--	--	--	--	--
Lindane, alpha	6.79E-06	--	--	--	--	--	--
Lindane, beta	3.46E-07	--	--	--	--	--	--
Lindane, gamma	3.39E-06	3.00E-04	--	6.1E+02	1.1E+02	--	9.0E+01
Methoxychlor	6.33E-06	5.0E-03	--	1.0E+04	1.8E+03	--	1.5E+03
MPA	--	1.00E-01	--	2.0E+05	3.5E+04	--	3.0E+04
PCB 1248	3.60E-03	2.0E-05	--	4.1E+01	7.0E+00	--	6.0E+00
Prometon	--	1.50E-02	--	3.1E+04	5.3E+03	--	4.5E+03
Pyrene	8.27E-06	3.0E-02	--	6.1E+04	1.1E+04	--	9.0E+03
RDX	2.60E-11	3.0E-03	--	6.1E+03	1.1E+03	--	9.0E+02

Where available, source of H values is EPA 1994, otherwise taken from Table 2.6-1 of the Interim Report.

Table 1-4 Derivation of Soil RBSLs for Industrial Land-Use Scenario, Noncarcinogenic Endpoints -- Organic Volatile Constituents

Constituent	H (atm-m^3/mol)	RfD (mg/kg/day)	RfC (mg/m^3)	SI-RBSL (ug/g)	DC-RBSL (ug/g)	INH-RBSL (ug/g)	Cumulative RBSL (ug/g)
1,1,2-Trichloroethane	1.00E-03	4.0E-03	--	8.2E+03	1.4E+03	--	1.2E+03
1,4-Dichlorobenzene	1.60E-03	2.4E-02	--	4.9E+04	8.5E+03	--	7.2E+03
2-Methylnaphthalene	5.80E-05	--	--	--	--	--	--
Acetone	2.88E-05	1.0E-01	--	2.0E+05	3.5E+04	--	3.0E+04
Aldrin	1.03E-04	3.0E-05	--	6.1E+01	1.1E+01	--	9.0E+00
Anthracene	1.11E-04	3.0E-01	--	6.1E+05	1.1E+05	--	9.0E+04
Benzene	5.47E-03	--	--	--	--	--	--
BHC, beta	--	--	--	--	--	--	--
Chlordane, a- and g-	6.65E-05	6.0E-05	--	1.2E+02	2.1E+01	--	1.8E+01
Chloroform	4.02E-03	1.0E-02	--	2.0E+04	3.5E+03	--	3.0E+03
DDE	1.24E-04	--	--	--	--	--	--
DDT	5.37E-05	5.0E-04	--	1.0E+03	1.8E+02	--	1.5E+02
Dibenzofuran	5.30E-03	4.0E-03	--	8.2E+03	1.4E+03	--	1.2E+03
Di-n-octyl phthalate	1.37E-01	2.0E-02	--	4.1E+04	7.0E+03	--	6.0E+03
Endosulfan I/II	2.31E-05	6.0E-03	--	1.2E+04	2.1E+03	--	1.8E+03
Ethylbenzene	7.75E-03	1.0E-01	1.0E+00	2.0E+05	3.5E+04	5.0E+03	4.3E+03
Heptachlor	5.87E-04	5.0E-04	--	1.0E+03	1.8E+02	--	1.5E+02
MEK	4.35E-05	6.0E-01	1.0E+00	1.2E+06	2.1E+05	1.0E+05	6.6E+04
Methyl-N-butyl Ketone	4.35E-05	8.0E-02	2.3E-02	1.6E+05	2.8E+04	8.8E+04	1.9E+04
Methylene chloride	2.37E-03	6.0E-02	--	1.2E+05	2.1E+04	--	1.8E+04
Naphthalene	4.80E-04	4.0E-03	1.4E-02	8.2E+03	1.4E+03	6.8E+02	4.3E+02
N-Nitrosodi-N-propylamine	4.14E-05	--	--	--	--	--	-- --
PCB 1242	--	--	--	--	--	--	--
PCB 1254	1.56E-02	2.0E-05	--	4.1E+01	7.0E+00	--	6.0E+00
PCB 1260	7.10E-03	--	--	--	--	--	--
Pentachlorophenol	1.42E-05	3.0E-02	--	6.1E+04	1.1E+04	--	9.0E+03
Phenanthrene	6.05E-03	--	--	--	--	--	--
TCDD	1.53E-04	--	--	--	--	--	--
Tetrachloroethane-1,1,2,2	3.72E-04	--	--	--	--	--	--
Tetrachloroethylene	1.73E-02	1.0E-02	--	2.0E+04	3.5E+03	--	3.0E+03
Thiodiglycol	--	--	--	--	--	--	--
Toluene	6.14E-03	2.0E-01	4.0E-01	4.1E+05	7.0E+04	1.6E+03	1.6E+03
TPHC	--	2.0E-02	--	4.1E+04	7.0E+03	--	6.0E+03
Trichloroethene	1.06E-02	6.0E-03	--	1.2E+04	2.1E+03	--	1.8E+03
Trichlorofluoromethane	9.70E-02	3.0E-01	--	6.1E+05	1.1E+05	--	9.0E+04
Xylene	5.25E-03	2.0E+00	--	4.1E+06	7.0E+05	--	6.0E+05

-- Toxicity data not applicable.

Table 1-4 Derivation of Soil RBSLs for Industrial Land-Use Scenario,
Volatilization Factor (VF) and Soil Saturation Limit (SSL) Calculations

Volatilization Factor (VF) Equation

$VF = Q/C * (10^{-4} m^2/cm^2) * (3.14 * \alpha * T)^{1/2} / (2 * Dei * \theta_a * Kas)$

where:

- $\alpha\ (cm^2/s) = (Dei * \theta_a)/(\theta_a + ((\rho s)(1 - \theta_a) / Kas))$
  $Dei\ (cm^2/s) = Di * (\theta_a^{3.33} / n^2)$
  θ_a = n - w ρb = 0.28 Lair/Lsoil
  n = 1 - (ρb/ρs) = 0.43 Lpore/Lsoil

Soil Saturation Limit (Csat) Equation

$Csat = S/\rho b * [(Kd * \rho b) + \theta_w + (H' * \theta a)]$

where:			Units
S = solubility in water	=	chemical-specific	mg/L-water
ρb = dry soil bulk density	=	1.5	kg/L
θ_w = water-filled soil porosity	=	0.15	L water / L soil
w = average soil moisture content	=	0.1 or 10 percent	unitless

VF Input Parameter Definitions		Value	Units
VF = Volatilization Factor			m^3/kg
Q/C = inverse of the mean conc at the center of a 30-acre-square source	=	35.1	g/m^2-s per kg/m^3
T = exposure interval	=	9.5E+08	s
Dei = effective diffusivity	=	$Di * (\theta_a^{3.33}/n^2)$	cm^2/s
θ_a = air-filled soil porosity	=	0.28	Lair / Lsoil
Di = diffusivity in air	=	chemical-specific	cm^2/s
n = total soil porosity (for loam)	=	0.43	Lpore / Lsoil
w = average soil moisture content	=	0.10	cm3 water / g soil
ρb = dry soil bulk density		1.5	g/cm^3 or kg/L
ρs = soil particle density		2.65	g/cm^3
Kas = soil-air partition coefficient	=	H'/Kd	g-soil / cm^3-air
H = Henry's law constant	=	chemical-specific	atm-m^3/mol
H' = Henry's law constant, unitless	=	H * 41	unitless*
**41 is a units conversion factor (where units = mol/atm-m3)*			
Kd = soil-water partition coefficient	=	chemical-specific	cm^3/g or L/kg**
***or, in lieu of chem-specific data, Kd = Koc * foc*			
Koc = organic carbon partition coefficien	=	chem-specific	cm^3/g or L/kg
foc = organic carbon content of soil	=	0.006	g/g (0.6%)

Source of Equations and Default Input Parameters: ***EPA Draft Soil Screening Guidance (EPA/540/R-94/106, December 1994)***

Chemical-Specific Volatilization Factors (VFs) and Soil Saturation Limit (Csat) Derivations

Parameter	Di (cm^2/s)	Dei * (cm^2/s)	H (atm-m^3/mol)	H' (unitless)	Koc (cm3/g)	Kd* (cm^3/g)	Kas * (g/cm3)	a * (cm^2/s)	S (mg/L-water)	VF (m^3/kg)	Csat (mg/kg)
1,1,2-Trichloroethane	7.80E-02	6.1E-03	1.00E-03	4.1E-02	7.60E+01	4.56E-01	9.0E-02	7.9E-05	4.40E+03	5.6E+03	2.48E+03
1,4-Dichlorobenzene	1.30E-01	1.0E-02	1.60E-03	6.6E-02	1.20E+03	7.20E+00	9.1E-03	1.4E-05	2.00E+02	1.4E+04	1.46E+03
2-Methylnaphthalene	5.80E-05	4.5E-06	5.80E-05	2.4E-03	no data	--	--	--	no data	--	--
Acetone	1.24E-01	9.7E-03	2.88E-05	1.2E-03	4.60E-01	2.76E-03	4.3E-01	5.7E-04	6.04E+05	2.0E+03	6.22E+04
Aldrin	1.32E-02	1.0E-03	1.03E-04	4.2E-03	4.84E+04	2.90E+02	1.5E-05	2.2E-09	7.84E-02	1.1E+06	2.28E+01
Anthracene	3.24E-02	2.5E-03	1.11E-04	4.6E-03	2.12E+04	1.27E+02	3.6E-05	1.3E-08	5.37E-02	4.4E+05	6.84E+00
Benzene	8.70E-02	6.8E-03	5.47E-03	2.2E-01	5.70E+01	3.42E-01	6.6E-01	6.0E-04	1.78E+03	1.9E+03	8.61E+02
BHC, beta	no data	--	no data	--	no data	--	--	--	no data	--	--
Chlordane, a- and g-	1.18E-02	9.2E-04	6.65E-05	2.7E-03	5.13E+04	3.08E+02	8.9E-06	1.2E-09	2.19E-01	1.5E+06	6.74E+01
Chloroform	1.04E-01	8.1E-03	4.02E-03	1.6E-01	5.60E+01	3.36E-01	4.9E-01	5.4E-04	7.96E+03	2.0E+03	3.72E+03
DDE	1.44E-02	1.1E-03	1.24E-04	5.1E-03	8.64E+04	5.18E+02	9.8E-06	1.6E-09	5.10E-03	1.2E+06	2.64E+00
DDT	1.37E-02	1.1E-03	5.37E-05	2.2E-03	2.37E+05	1.42E+03	1.5E-06	2.4E-10	3.41E-03	3.2E+06	4.85E+00
Dibenzofuran	no data	--	5.30E-03	2.2E-01	no data	--	--	--	no data	--	--
Di-n-octyl phthalate	no data	--	1.4E-01	5.6E+00	nodata	--	--	--	no data	--	--
Endosulfan I/II	1.15E-02	9.0E-04	2.31E-05	9.5E-04	7.38E+02	4.43E+00	2.1E-04	2.8E-08	2.31E-01	3.0E+05	1.05E+00
Ethylbenzene	7.50E-02	5.9E-03	7.75E-03	3.2E-01	2.21E+02	1.33E+00	2.4E-01	2.0E-04	1.73E+02	3.4E+03	2.57E+02
Heptachlor	1.12E-02	8.7E-04	5.87E-04	2.4E-02	6.81E+03	4.09E+01	5.9E-04	7.6E-08	2.73E-01	1.8E+05	1.12E+01
MEK	8.08E-02	6.3E-03	1.05E-05	4.3E-04	1.35E+02	8.10E-01	5.3E-04	4.9E-07	2.39E+05	7.2E+04	2.18E+05
Methyl-N-butyl Ketone	7.80E-06	6.1E-07	4.35E-05	1.8E-03	7.40E+01	4.44E-01	4.0E-03	3.6E-10	5.95E+04	2.7E+06	3.24E+04
Methylene chloride	1.01E-01	7.9E-03	2.37E-03	9.7E-02	1.60E+01	9.60E-02	1.0E+00	1.0E-03	1.74E+04	1.4E+03	3.73E+03
Naphthalene	5.9E-02	4.6E-03	4.8E-04	2.0E-02	9.6E+02	5.8E+00	3.4E-03	2.3E-06	3.1E+01	3.3E+04	1.8E+02
N-Nitrosodi-N-propylamine	5.13E-02	4.0E-03	4.14E-05	1.7E-03	1.70E+01	1.02E-01	1.7E-02	9.7E-06	1.46E+04	1.6E+04	2.95E+03
PCB 1242	--	--	--	--	--	--	--	--	--	--	--
PCB 1254	1.04E-01	8.1E-03	1.56E-02	6.4E-01	4.10E+05	2.46E+03	2.6E-04	3.1E-07	5.70E-02	9.0E+04	1.40E+02
PCB 1260	1.04E-01	8.1E-03	7.10E-03	2.9E-01	2.63E+06	1.58E+04	1.8E-05	2.2E-08	8.00E-02	3.4E+05	1.26E+03
Pentachlorophenol	5.60E-02	4.4E-03	1.42E-05	5.8E-04	5.67E+02	3.40E+00	1.7E-04	1.1E-07	1.34E+01	1.5E+05	4.69E+01
Phenanthrene	no data	--	6.05E-03	2.5E-01	no data	--	--	--	no data	--	--
TCDD	no data	--	1.53E-04	6.3E-03	no data	--	--	--	no data	--	--
Tetrachloroethane	7.10E-02	5.5E-03	3.72E-04	1.5E-02	7.90E+01	4.74E-01	3.2E-02	2.6E-05	3.07E+03	9.8E+03	1.77E+03
Tetrachloroethylene	7.20E-02	5.6E-03	1.73E-02	7.1E-01	3.00E+02	1.80E+00	3.9E-01	3.1E-04	2.32E+02	2.7E+03	4.72E+02
Thiodiglycol	--	--	--	--	--	--	--	--	--	--	--
Toluene	8.70E-02	6.8E-03	6.14E-03	2.5E-01	1.31E+02	7.86E-01	3.2E-01	3.0E-04	5.58E+02	2.7E+03	5.21E+02
TPHC	no data	--	no data	--	no data	--	--	--	no data	--	--
Trichloroethene	7.90E-02	6.2E-03	1.06E-02	4.3E-01	9.40E+01	5.64E-01	7.7E-01	6.3E-04	1.18E+03	1.8E+03	8.79E+02
Trichlorofluoromethane	8.70E-02	6.8E-03	9.70E-02	4.0E+00	1.48E+02	8.88E-01	4.5E+00	2.7E-03	1.08E+03	5.8E+02	1.87E+03
Xylene	7.8E-06	6.1E-07	5.3E-03	2.2E-01	7.4E+01	4.4E-01	4.8E-01	4.0E-08	5.6E+02	2.3E+05	3.3E+02

* refers to calculated value

Where available, source of H values is EPA 1994 Table 5-5, otherwise taken from Table 2.6-1 of Interim Report

Source of Koc, Di, and S values is EPA 1994 Table 3-2, Chemical-Specific Properties Used in SSL Calculations

Attachment 2

Initial Estimate of Total Human Health Risk

TABLE 2-1

Deseret Chemical Depot

Summary of Total Soil Risk by SWMU

SWMU	Residential Carcinogenic Risk	Residential Noncarcinogenic Hazard Index	Industrial Carcinogenic Risk	Industrial Noncarcinogenic Hazard Index
3	***5.E-04***	***15.1***	6.E-05	0.7
5	**3.E-05**	**4.8**	5.E-06	0.3
8	**3.E-05**	**5.1**	4.E-06	0.2
9	**4.E-05**	**5.0**	7.E-06	0.2
30	***2.E-04***	***8.6***	3.E-05	0.4
31	**4.E-05**	**5.7**	6.E-06	0.3
Background	**5.E-05**	**6.1**	6.E-06	0.3

Italics denotes SWMUs with risks or HI values greater than those for background.

Corrective Action is required if	**Risk ≥ 1.E-06**	**HI ≥ 1.0**	**Risk ≥ 1.E-04**	**HI ≥ 1.0**

Table 2-2 Calculated Risk for Background
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	AG		BKGD	20	1	0	5	0	0.300	0.030
Y	AL		BKGD	20	20	0	100	0	13000.000	4700.000
Y	AS		BKGD	19	19	0	100	0	11.000	10.000
Y	BA		BKGD	20	20	0	100	0	210.000	110.000
Y	BE		BKGD	20	20	0	100	0	0.660	0.220
N	CA	EN	BKGD	20	20	0	100	0	110000.000	54000.000
Y	CD		BKGD	19	12	0	63	0	0.560	0.220
Y	CO		BKGD	20	20	0	100	0	5.400	1.500
Y	CR		BKGD	20	20	0	100	0	19.000	8.500
Y	CU		BKGD	19	19	0	100	0	16.000	6.300
N	FE	EN	BKGD	20	20	0	100	0	13000.000	4000.000
Y	HG		BKGD	19	14	0	74	0	0.050	0.030
N	K	EN	BKGD	20	20	0	100	0	4400.000	1700.000
N	MG	EN	BKGD	20	20	0	100	0	12000.000	2300.000
Y	MN		BKGD	20	20	0	100	0	390.000	160.000
N	NA	EN	BKGD	20	20	0	100	0	2000.000	1600.000
Y	NI		BKGD	20	20	0	100	0	16.000	4.300
Y	PB		BKGD	19	20	0	105	0	16.000	9.600
Y	SB		BKGD	20	1	0	5	0	4.000	1.900
Y	SE		BKGD	20	1	0	5	0	0.130	0.020
Y	TL		BKGD	20	17	0	85	0	18.000	13.000
Y	V		BKGD	20	20	0	100	0	29.000	14.000
Y	ZN		BKGD	20	20	0	100	0	69.000	26.000

Table 2-2 Calculated Risk for Background
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	AG		BKGD	0.435	0.435			1.7291	0.312	0.312	EPC = UCL
Y	AL		BKGD	5530.000	25200.000			1.7291	14817.201	14817.201	EPC = UCL
Y	AS		BKGD	2.980	40.000			1.7341	14.978	14.978	EPC = UCL
Y	BA		BKGD	61.500	537.000			1.7291	252.530	252.530	EPC = UCL
Y	BE		BKGD	0.303	1.210			1.7291	0.745	0.745	EPC = UCL
N	CA	EN	BKGD	32200.000	250000.000			1.7291	130878.480	130878.480	EPC = UCL
Y	CD		BKGD	0.411	0.982			1.7341	0.648	0.648	EPC = UCL
Y	CO		BKGD	2.120	8.590			1.7291	5.980	5.980	EPC = UCL
Y	CR		BKGD	8.120	48.500			1.7291	22.286	22.286	EPC = UCL
Y	CU		BKGD	7.240	27.600			1.7341	18.506	18.506	EPC = UCL
N	FE	EN	BKGD	6140.000	24300.000			1.7291	14546.554	14546.554	EPC = UCL
Y	HG		BKGD	0.031	0.143			1.7341	0.062	0.062	EPC = UCL
N	K	EN	BKGD	2270.000	7940.000			1.7291	5057.285	5057.285	EPC = UCL
N	MG	EN	BKGD	8930.000	16150.000			1.7291	12889.269	12889.269	EPC = UCL
Y	MN		BKGD	167.000	658.000			1.7291	451.862	451.862	EPC = UCL
N	NA	EN	BKGD	429.000	5610.000			1.7291	2618.622	2618.622	EPC = UCL
Y	NI		BKGD	10.100	27.900			1.7291	17.663	17.663	EPC = UCL
Y	PB		BKGD	5.450	35.000			1.7341	19.819	19.819	EPC = UCL
Y	SB		BKGD	11.900	11.900			1.7291	4.735	4.735	EPC = UCL
Y	SE		BKGD	0.208	0.208			1.7291	0.138	0.138	EPC = UCL
Y	TL		BKGD	5.430	49.900			1.7291	23.026	23.026	EPC = UCL
Y	V		BKGD	15.600	62.600			1.7291	34.413	34.413	EPC = UCL
Y	ZN		BKGD	36.100	144.000			1.7291	79.053	79.053	EPC = UCL

Table 2-2 Calculated Risk for Background
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
Y	AG		BKGD	0.000000	COC; No RBSL	- -	390.000000	0.000799	0.01
Y	AL		BKGD	0.000000	COC; No RBSL	- -	77000.000000	0.192431	3.16
Y	AS		BKGD	0.360000	4.2E-05	89.03	23.000000	0.651230	10.70
Y	BA		BKGD	0.000000	COC; No RBSL	- -	5400.000000	0.046765	0.77
Y	BE		BKGD	0.150000	5.0E-06	10.63	390.000000	0.001910	0.03
N	CA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	CD		BKGD	920.000000	7.0E-10	0.00	39.000000	0.016603	0.27
Y	CO		BKGD	0.000000	COC; No RBSL	- -	460.000000	0.013000	0.21
Y	CR		BKGD	140.000000	1.6E-07	0 34	390.000000	0.057145	0.94
Y	CU		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	FE	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	HG		BKGD	0.000000	COC; No RBSL	- -	23.000000	0.002693	0.04
N	K	EN	BKGD	EN	EN	EN	EN	EN	EN
N	MG	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	MN		BKGD	0 000000	COC; No RBSL	- -	390.000000	1.158621	19.03
N	NA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	NI		BKGD	0.000000	COC; No RBSL	- -	1500.000000	0.011775	0.19
Y	PB		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	SB		BKGD	0.000000	COC; No RBSL	- -	31.000000	0.152729	2.51
Y	SE		BKGD	0.000000	COC; No RBSL	- -	390.000000	0.000353	0.01
Y	TL		BKGD	0.000000	COC; No RBSL	- -	6.200000	3.713919	61.01
Y	V		BKGD	0.000000	COC; No RBSL	- -	540.000000	0.063728	1.05
Y	ZN		BKGD	0.000000	COC; No RBSL	- -	23000.000000	0.003437	0.06
				TOTAL RISK	4.7E-05	100.00		HI 6.087139	100.00

Table 2-2 Calculated Risk for Background
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
Y	AG		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.000034	0.01
Y	AL		BKGD	0.000000	COC; No RBSL	- -	10000000.000000	0.001482	0.55
Y	AS		BKGD	2.900000	5.2E-06	87.79	550.000000	0.027233	10.13
Y	BA		BKGD	0.000000	COC; No RBSL	- -	130000.000000	0.001943	0.72
Y	BE		BKGD	1.200000	6.2E-07	10.55	9200.000000	0.000081	0.03
N	CA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	CD		BKGD	1500.000000	4.3E-10	0.01	920.000000	0.000704	0.26
Y	CO		BKGD	0.000000	COC; No RBSL	- -	11000.000000	0.000544	0.20
Y	CR		BKGD	230.000000	9.7E-08	1.65	920.000000	0.024224	9.01
Y	CU		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	FE	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	HG		BKGD	0.000000	COC; No RBSL	- -	550.000000	0.000113	0.04
N	K	EN	BKGD	EN	EN	EN	EN	EN	EN
N	MG	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	MN		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.049115	18.28
N	NA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	NI		BKGD	0.000000	COC; No RBSL	- -	37000.000000	0.000477	0.18
Y	PB		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	SB		BKGD	0.000000	COC; No RBSL	- -	730.000000	0.006486	2.41
Y	SE		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.000015	0.01
Y	TL		BKGD	0.000000	COC; No RBSL	- -	150.000000	0.153509	57.12
Y	V		BKGD	0.000000	COC; No RBSL	- -	13000.000000	0.002647	0.98
Y	ZN		BKGD	0.000000	COC; No RBSL	- -	550000.000000	0.000144	0.05
				TOTAL RISK	5.9E-06	100.00	HI	0.268750	100.00

Table 2-3 Total Risk for SWMU 3 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	AL		3	24	24	0	100	0	12861.667	5801.527
Y	AS		3	24	24	12	100	50	122.732	149.592
Y	BA		3	24	24	0	100	0	264.604	131.549
Y	BE		3	24	21	1	88	4	0.674	0.257
N	C16A	NT	3	1	1	1	100	100	0.350	
N	C17	NT	3	1	1	1	100	100	1.300	
N	C27	NT	3	1	1	1	100	100	0.820	
N	C29	NT	3	1	1	1	100	100	0.560	
N	CA	EN	3	24	24	0	100	0	87508.333	41292.761
Y	CD		3	24	9	2	38	8	0.558	0.387
Y	CO		3	24	24	1	100	4	5.777	2.445
Y	CR		3	24	24	1	100	4	22.153	21.210
Y	CU		3	24	24	1	100	4	16.624	10.605
Y	CYN		3	24	1	1	4	4	0.513	0.259
N	DEGLYC	NT	3	2	2	2	100	100	0.515	0.106
Y	DNBP		3	24	1	1	4	4	29.646	4.185
Y	FANT		3	24	1	1	4	4	32.588	6.916
N	FE	EN	3	24	24	1	100	4	14090.833	6412.625
N	GSITOS	NT	3	2	2	2	100	100	0.818	0.251
Y	HG		3	24	24	17	100	71	0.573	0.777
N	K	EN	3	24	24	2	100	8	4328.542	2251.343
N	MG	EN	3	24	24	5	100	21	12904.583	3401.722
Y	MN		3	24	24	3	100	13	438.479	162.774
Y	MPA		3	24	2	2	8	8	1.489	2.022
N	NA	EN	3	24	24	0	100	0	1634.917	1097.106
Y	NI		3	24	24	0	100	0	15.939	6.029
N	OMCTSX	NT	3	2	2	2	100	100	0.008	0.004
Y	PB		3	24	24	6	100	25	31.128	38.796
Y	PCB254		3	24	2	8	8	8	0.056	0.061
Y	PCB260		3	24	2	2	4	4	0.046	0.031
Y	PYR		3	24	1	1	4	4	15.816	3.351
Y	SB		3	24	2	1	8	4	4.356	2.747
Y	TL		3	24	24	1	100	4	31.335	8.773
Y	V		3	24	24	0	100	0	26.324	14.015
Y	ZN		3	24	24	2	100	8	115.223	177.047

Table 2-3 Total Risk for SWMU 3 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	AL		3	3150.000	21400.000	12861.667	5801.527	1.7139	14891.322	14891.322	EPC = UCL
Y	AS		3	9.570	500.000	122.732	149.592	1.7139	175.067	175.067	EPC = UCL
Y	BA		3	63.800	526.000	264.604	131.549	1.7139	310.626	310.626	EPC = UCL
Y	BE		3	0.350	1.220	0.735	0.213	1.7139	0.764	0.764	EPC = UCL
N	C16A	NT	3	0.350	0.350	0.350		0.0000	0.350	0.350	EPC = MAX
N	C17	NT	3	1.300	1.300	1.300		0.0000	1.300	1.300	EPC = MAX
N	C27	NT	3	0.820	0.820	0.820		0.0000	0.820	0.820	EPC = MAX
N	C29	NT	3	0.560	0.560	0.560		0.0000	0.560	0.560	EPC = MAX
N	CA	EN	3	44800.000	180000.000	87508.333	41292.761	1.7139	101954.538	101954.538	EPC = UCL
Y	CD		3	0.540	2.000	0.906	0.462	1.7139	0.693	0.693	EPC = UCL
Y	CO		3	1.510	8.890	5.777	2.445	1.7139	6.632	6.632	EPC = UCL
Y	CR		3	7.140	117.000	22.153	21.210	1.7139	29.573	29.573	EPC = UCL
Y	CU		3	9.280	61.200	16.624	10.605	1.7139	20.334	20.334	EPC = UCL
Y	CYN		3	1.730	1.730	1.730		1.7139	0.604	0.604	EPC = UCL
N	DEGLYC	NT	3	0.440	0.590	0.515		6.3138	0.988	0.590	EPC = MAX
Y	DNBP		3	10.000	10.000	10.000		1.7139	31.110	10.000	EPC = MAX
Y	FANT		3	0.120	0.120	0.120		1.7139	35.008	0.120	EPC = MAX
N	FE	EN	3	4430.000	30800.000	14090.833	6412.625	1.7139	16334.279	16334.279	EPC = UCL
N	GSITOS	NT	3	0.640	0.995	0.818		6.3138	1.939	0.995	EPC = MAX
Y	HG		3	0.037	2.800	0.573	0.777	1.7139	0.845	0.845	EPC = UCL
N	K	EN	3	1480.000	10100.000	4328.542	2251.343	1.7139	5116.171	5116.171	EPC = UCL
N	MG	EN	3	9370.000	23500.000	12904.583	3401.722	1.7139	14094.670	14094.670	EPC = UCL
Y	MN		3	130.000	737.000	438.479	162.774	1.7139	495.425	495.425	EPC = UCL
Y	MPA		3	2.940	10.800	6.870		1.7139	2.196	2.196	EPC = UCL
N	NA	EN	3	424.000	3780.000	1634.917	1097.106	1.7139	2018.738	2018.738	EPC = UCL
Y	NI		3	5.600	27.400	15.939	6.029	1.7139	18.048	18.048	EPC = UCL
N	OMCTSX	NT	3	0.005	0.010	0.008		6.3138	0.026	0.010	EPC = MAX
Y	PB		3	7.740	170.000	31.128	38.796	1.7139	0.077	0.077	EPC = UCL
Y	PCB254		3	0.118	0.331	0.225		1.7139	0.057	0.057	EPC = UCL
Y	PCB260		3	0.193	0.193	0.193		1.7613	0.068	0.068	EPC = UCL
Y	PYR		3	0.083	0.083	0.083		1.7139	16.988	0.083	EPC = MAX
Y	SB		3	10.700	15.300	13.000		1.7139	5.317	5.317	EPC = UCL
Y	TL		3	16.650	54.900	31.335	8.773	1.7139	34.404	34.404	EPC = UCL
Y	V		3	4.770	51.700	26.324	14.015	1.7139	31.227	31.227	EPC = UCL
Y	ZN		3	40.200	820.000	115.223	177.047	1.7139	177.163	177.163	EPC = UCL

Table 2-3 Total Risk for SWMU 3 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
Y	AL		3	0.000000	COC; No RBSL	- -	77000.000000	0.193394	1.28
Y	AS		3	0.360000	4.9E-04	98.58	23.000000	7.611609	50.27
Y	BA		3	0.000000	COC; No RBSL	- -	5400.000000	0.057523	0.38
Y	BE		3	0.150000	5.1E-06	1.03	390.000000	0.001959	0.01
N	C16A	NT	3	NT	NT	NT	NT	NT	NT
N	C17	NT	3	NT	NT	NT	NT	NT	NT
N	C27	NT	3	NT	NT	NT	NT	NT	NT
N	C29	NT	3	NT	NT	NT	NT	NT	NT
N	CA	EN	3	EN	EN	EN	EN	EN	EN
Y	CD		3	920.000000	7.5E-10	0.00	39.000000	0.017769	0.12
Y	CO		3	0.000000	COC; No RBSL	- -	460.000000	0.014417	0.10
Y	CR		3	140.000000	2.1E-07	0.04	390.000000	0.075828	0.50
Y	CU		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	CYN		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	DEGLYC	NT	3	NT	NT	NT	NT	NT	NT
Y	DNBP		3	0.000000	COC; No RBSL	- -	4700.000000	0.002128	0.01
Y	FANT		3	0.000000	COC; No RBSL	- -	1900.000000	0.000063	0.00
N	FE	EN	3	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	3	NT	NT	NT	NT	NT	NT
Y	HG		3	0.000000	COC; No RBSL	- -	23.000000	0.036739	0.24
N	K	EN	3	EN	EN	EN	EN	EN	EN
N	MG	EN	3	EN	EN	EN	EN	EN	EN
Y	MN		3	0.000000	COC; No RBSL	- -	390.000000	1.270321	8.39
Y	MPA		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	NA	EN	3	EN	EN	EN	EN	EN	EN
Y	NI		3	0.000000	COC; No RBSL	- -	1500.000000	0.012032	0.08
N	OMCTSX	NT	3	NT	NT	NT	NT	NT	NT
Y	PB		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	PCB254		3	0.000000	COC; No RBSL	- -	0.940000	0.060638	0.40
Y	PCB260		3	0.040000	1.7E-06	0.34	0.000000	COC; No RBSL	- -
Y	PYR		3	0.000000	COC; No RBSL	- -	1400.000000	0.000059	0.00
Y	SB		3	0.000000	COC; No RBSL	- -	31.000000	0.171516	1.13
Y	TL		3	0.000000	COC; No RBSL	- -	6.200000	5.549032	36.65
Y	V		3	0.000000	COC; No RBSL	- -	540.000000	0.057828	0.38
Y	ZN		3	0.000000	COC; No RBSL	- -	23000.000000	0.007703	0.05
				TOTAL RISK	4.9E-04	100.00		HI 15.140559	100.00

Table 2-3 Total Risk for SWMU 3 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
Y	AL		3	0.000000	COC; No RBSL	- -	10000000.000000	0.001489	0.23
Y	AS		3	2.900000	6.0E-05	96.08	550.000000	0.318304	48.87
Y	BA		3	0.000000	COC; No RBSL	- -	130000.000000	0.002389	0.37
Y	BE		3	1.200000	6.4E-07	1.01	9200.000000	0.000083	0.01
N	C16A	NT	3	NT	NT	NT	NT	NT	NT
N	C17	NT	3	NT	NT	NT	NT	NT	NT
N	C27	NT	3	NT	NT	NT	NT	NT	NT
N	C29	NT	3	NT	NT	NT	NT	NT	NT
N	CA	EN	3	EN	EN	EN	EN	EN	EN
Y	CD		3	1500.000000	4.6E-10	0.00	920.000000	0.000753	0.12
Y	CO		3	0.000000	COC; No RBSL	- -	11000.000000	0.000603	0.09
Y	CR		3	230.000000	1.3E-07	0.20	920.000000	0.032145	4.93
Y	CU		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	CYN		3	0.000000	COC; No RBSL	- -	37000.000000	0.000016	0.00
N	DEGLYC	NT	3	NT	NT	NT	NT	NT	NT
Y	DNBP		3	0.000000	COC; No RBSL	- -	30000.000000	0.000333	0.05
Y	FANT		3	0.000000	COC; No RBSL	- -	12000.000000	0.000010	0.00
N	FE	EN	3	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	3	NT	NT	NT	NT	NT	NT
Y	HG		3	0.000000	COC; No RBSL	- -	550.000000	0.001536	0.24
N	K	EN	3	EN	EN	EN	EN	EN	EN
N	MG	EN	3	EN	EN	EN	EN	EN	EN
Y	MN		3	0.000000	COC; No RBSL	- -	9200.000000	0.053851	8.27
Y	MPA		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	NA	EN	3	EN	EN	EN	EN	EN	EN
Y	NI		3	0.000000	COC; No RBSL	- -	37000.000000	0.000488	0 07
N	OMCTSX	NT	3	NT	NT	NT	NT	NT	NT
Y	PB		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	PCB254		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	PCB260		3	0.040000	1.7E-06	2.71	0.000000	COC; No RBSL	- -
Y	PYR		3	0.000000	COC; No RBSL	- -	9000.000000	0.000009	0.00
Y	SB		3	0 000000	COC; No RBSL	- -	730.000000	0.007284	1.12
Y	TL		3	0 000000	COC; No RBSL	- -	150 000000	0.229360	35 21
Y	V		3	0.000000	COC; No RBSL	- -	13000.000000	0.002402	0.37
Y	ZN		3	0.000000	COC, No RBSL	- -	550000.000000	0.000322	0 05
				TOTAL RISK	6 3E-05	100.00		HI 0.651377	100.00

Table 2-3 Total Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation	Minimum Detected Concentration (ug/g)
N	1MNAP	NT	5	1	1	1	100	100	0.47		0.47
N	2CHE1O	NT	5	1	1	1	100	100	0.41		0.41
Y	2MNAP		5	44	2	2	5	5	23.399	5.102	0.094
N	2PROL	NT	5	1	1	1	100	100	0.027		0.027
N	2TMPD	NT	5	3	3	3	100	100	1.607	0.953	0.52
Y	ACET		5	46	1	1	2	2	4.158	0.622	0.028
Y	AG		5	74	8	8	11	11	1.976	9.521	0.982
Y	AL		5	74	74	1	100	1	13156.351	5236.769	3910
Y	AS		5	74	74	1	100	1	6.971	7.038	1.98
Y	BA		5	74	74	0	100	0	192.881	105.236	47.9
Y	BE		5	74	54	4	73	5	0.6	0.337	0.295
N	C25	NT	5	1	1	1	100	100	0.42		0.42
N	C27	NT	5	4	4	4	100	100	0.753	0.418	0.3
N	C28	NT	5	1	1	1	100	100	0.42		0.42
N	C29	NT	5	7	7	7	100	100	1.259	0.815	0.43
N	CA	EN	5	74	74	0	100	0	115831.081	38278.822	10800
Y	CCL3F		5	46	1	1	2	2	0.000326086	0.002	0.015
Y	CD		5	74	47	26	64	35	1.446	3.068	0.445
Y	CH2CL2		5	46	2	2	4	4	2.87	0.617	0.007
Y	CO		5	74	74	3	100	4	5.268	1.857	2.18
Y	CR		5	74	74	15	100	20	96.341	257.556	11
Y	CU		5	74	74	10	100	14	21.456	24.612	6.22
Y	CYN		5	74	1	1	1	1	0.496	0.31	3.13
Y	DBZFUR		5	44	1	1	2	2	17.105	2.822	0.11
Y	DEP		5	44	1	1	2	2	117.283	18.02	0.47
Y	DNBP		5	44	8	8	18	18	24.996	11.81	0.085
N	FE	EN	5	74	74	4	100	5	14672.162	8360.744	6220
N	GSITOS	NT	5	4	4	4	100	100	0.818	0.087	0.71
Y	HG		5	74	40	4	54	5	0.069	0.211	0.029
N	K	EN	5	74	74	0	100	0	3830.649	1415.695	878
Y	MEC6H5		5	46	2	2	4	4	0.373	0.079	0.001
N	MG	EN	5	74	74	6	100	8	13108.108	3411.254	7330
Y	MN		5	74	74	3	100	4	376.446	153.231	145
Y	NA	EN	5	74	74	0	100	0	1094.649	795.451	394
Y	NAP		5	44	3	3	7	7	17.263	4.627	0.064
Y	NI		5	74	74	11	100	15	23.122	24.696	6.82
N	OMCTSX	NT	5	7	7	7	100	100	0.037	0.035	0.01
Y	PB		5	74	74	27	100	36	74.947	137.099	4.65
Y	PCB260		5	46	2	2	4	4	0.046	0.03	0.157
Y	PHANTR		5	44	2	2	5	5	15.754	3.458	0.043
N	PHTHAN	NT	5	2	2	2	100	100	5.7	7.495	0.4
Y	SB		5	74	4	4	5	5	4.888	6.936	12.4
Y	SE		5	74	2	2	3	3	0.131	0.035	0.324
N	TCLTFE	NT	5	11	11	11	100	100	0.007	0.001	0.005
Y	TL		5	74	46	0	62	0	13.041	11.212	4.74
Y	V		5	74	74	4	100	5	27.201	16.748	6.65
Y	ZN		5	74	74	18	100	24	191.995	389.881	30.5

Table 2-3 Total Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
N	1MNAP	NT	5	0.47	0.47		0	0.47	0.47	EPC = MAX
N	2CHE1O	NT	5	0.41	0.41		0	0.41	0.41	EPC = MAX
Y	2MNAP		5	0.48	0.287		1.6811	24.692	0.48	EPC = MAX
N	2PROL	NT	5	0.027	0.027		0	0.027	0.027	EPC = MAX
N	2TMPD	NT	5	2.3	1.607	0.953	2.92	3.214	2.3	EPC = MAX
Y	ACET		5	0.028	0.028		1.6794	4.312	0.028	EPC = MAX
Y	AG		5	78	15.847	26.436	1.666	3.82	3.82	EPC = UCL
Y	AL		5	27700	13156.351	5236.769	1.666	14170.549	14170.549	EPC = UCL
Y	AS		5	50	6.971	7.038	1.666	8.334	8.334	EPC = UCL
Y	BA		5	792	192.881	105.236	1.666	213.262	213.262	EPC = UCL
Y	BE		5	1.74	0.729	0.306	1.666	0.665	0.665	EPC = UCL
N	C25	NT	5	0.42	0.42		0	0.42	0.42	EPC = MAX
N	C27	NT	5	1.2	0.753	0.418	2.3534	1.245	1.2	EPC = MAX
N	C28	NT	5	0.42	0 42		0	0.42	0.42	EPC = MAX
N	C29	NT	5	2.3	1.259	0.815	1.9432	1.858	1.858	EPC = UCL
N	CA	EN	5	220000	115831.081	38278.822	1.666	123244.486	123244.486	EPC = UCL
Y	CCL3F		5	0.015	0.015		1.6794	0.001	0.001	EPC = UCL
Y	CD		5	22.5	2.076	3.719	1.666	2.04	2.04	EPC = UCL
Y	CH2CL2		5	0.01	0.009		1.6794	3.023	0.01	EPC = MAX
Y	CO		5	12.2	5.268	1.857	1.666	5.628	5.628	EPC = UCL
Y	CR		5	1680	96.341	257.556	1.666	146.222	146.222	EPC = UCL
Y	CU		5	170	21.456	24.612	1.666	26.223	26.223	EPC = UCL
Y	CYN		5	3.13	3.13		1.666	0.556	0.556	EPC = UCL
Y	DBZFUR		5	0.11	0.11		1.6811	17.77	0.11	EPC = MAX
Y	DEP		5	0.47	0.47		1.6811	121.85	0.47	EPC = MAX
Y	DNBP		5	0.92	0 23	0.292	1.6811	27.989	0.92	EPC = MAX
N	FE	EN	5	73200	14672.162	8360.744	1.666	16291.375	16291.375	EPC = UCL
N	GSITOS	NT	5	0.92	0 818	0.087	2.3534	0.92	0.92	EPC = MAX
Y	HG		5	1.8	0.116	0 28	1.666	0.11	0.11	EPC = UCL
N	K	EN	5	7590	3830.649	1415.695	1.666	4104.825	4104.825	EPC = UCL
Y	MEC6H5		5	0.008	0.005		1.6794	0.393	0.008	EPC = MAX
N	MG	EN	5	32200	13108.108	3411.254	1.666	13768.761	13768.761	EPC = UCL
Y	MN		5	1160	376 446	153.231	1.666	406.122	406.122	EPC = UCL
Y	NA	EN	5	3630	1094.649	795.451	1.666	1248.703	1248.703	EPC = UCL
Y	NAP		5	0.6	0 355	0.271	1.6811	18.436	0.6	EPC = MAX
Y	NI		5	172	23.122	24.696	1.666	27.905	27.905	EPC = UCL
N	OMCTSX	NT	5	0.11	0.037	0.035	1.9432	0.063	0.063	EPC = UCL
Y	PB		5	750	74 947	137 099	1.666	101.499	101.499	EPC = UCL
Y	PCB260		5	0.213	0 185		1.679	0.054	0.054	EPC = UCL
Y	PHANTR		5	0.13	0 087		1.6811	16.63	0.13	EPC = MAX
N	PHTHAN	NT	5	11	5.7		6.3138	39.162	11	EPC = MAX
Y	SB		5	57.6	27.95	20.515	1.666	6.231	6.231	EPC = UCL
Y	SE		5	0.355	0.34		1.666	0.138	0.138	EPC = UCL
N	TCLTFE	NT	5	0.01	0.007	0.001	1.8125	0.008	0.008	EPC = UCL
Y	TL		5	34	19 972	8 61	1.666	15.212	15.212	EPC = UCL
Y	V		5	103	27.201	16.748	1.666	30.445	30.445	EPC = UCL
Y	ZN		5	2950	191.995	389.881	1.666	267.503	267.503	EPC = UCL

Table 2-3 Total Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
N	1MNAP	NT	5	NT	NT	NT	NT	NT	NT
N	2CHE1O	NT	5	NT	NT	NT	NT	NT	NT
Y	2MNAP		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2PROL	NT	5	NT	NT	NT	NT	NT	NT
N	2TMPD	NT	5	NT	NT	NT	NT	NT	NT
Y	ACET		5	0	COC; No RBSL	--	4700	0.000006	0.00
Y	AG		5	0	COC; No RBSL	--	390	0.009795	0.20
Y	AL		5	0	COC; No RBSL	--	77000	0.184033	3.81
Y	AS		5	0.36	2.3E-05	77.21	23	0.362348	7.50
Y	BA		5	0	COC; No RBSL	--	5400	0.039493	0.82
Y	BE		5	0.15	4.4E-06	14.79	390	0.001705	0.04
N	C25	NT	5	NT	NT	NT	NT	NT	NT
N	C27	NT	5	NT	NT	NT	NT	NT	NT
N	C28	NT	5	NT	NT	NT	NT	NT	NT
N	C29	NT	5	NT	NT	NT	NT	NT	NT
N	CA	EN	5	EN	EN	EN	EN	EN	EN
Y	CCL3F		5	0	COC; No RBSL	--	14000	0.000000	0.00
Y	CD		5	920	2.2E-09	0.01	39	0.052308	1.08
Y	CH2CL2		5	6	1.7E-09	0.01	2800	0.000004	0.00
Y	CO		5	0	COC; No RBSL	--	460	0.012235	0.25
Y	CR		5	140	1.0E-06	3.48	390	0.374928	7.76
Y	CU		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	CYN		5	0	COC; No RBSL	--	1500	0.000371	0.01
Y	DBZFUR		5	0	COC; No RBSL	--	190	0.000579	0.01
Y	DEP		5	0	COC; No RBSL	--	38000	0.000012	0.00
Y	DNBP		5	0	COC; No RBSL	--	4700	0.000196	0.00
N	FE	EN	5	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	5	NT	NT	NT	NT	NT	NT
Y	HG		5	0	COC; No RBSL	--	23	0.004783	0.10
N	K	EN	5	EN	EN	EN	EN	EN	EN
Y	MEC8H5		5	0	COC; No RBSL	--	1000	0.000008	0.00
N	MG	EN	5	EN	EN	EN	EN	EN	EN
Y	MN		5	0	COC; No RBSL	--	390	1.041338	21.56
Y	NA	EN	5	EN	EN	EN	EN	EN	EN
Y	NAP		5	0	COC; No RBSL	--	140	0.004286	0.09
Y	NI		5	0	COC; No RBSL	--	1500	0.018603	0.39
N	OMCTSX	NT	5	NT	NT	NT	NT	NT	NT
Y	PB		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB260		5	0.04	1.4E-06	4.50	0	COC; No RBSL	--
Y	PHANTR		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PHTHAN	NT	5	NT	NT	NT	NT	NT	NT
Y	SB		5	0	COC; No RBSL	--	31	0.201000	4.16
Y	SE		5	0	COC; No RBSL	--	390	0.000354	0.01
N	TCLTFE	NT	5	NT	NT	NT	NT	NT	NT
Y	TL		5	0	COC; No RBSL	--	6.2	2.453548	50.80
Y	V		5	0	COC; No RBSL	--	540	0.056380	1.17
Y	ZN		5	0	COC; No RBSL	--	23000	0.011631	0.24
				TOTAL RISK	3.0E-05	100.00	HI	4.829942	100.00

Table 2-3 Total Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
N	1MNAP	NT	5	NT	NT	NT	NT	NT	NT
N	2CHE1O	NT	5	NT	NT	NT	NT	NT	NT
Y	2MNAP		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2PROL	NT	5	NT	NT	NT	NT	NT	NT
N	2TMPD	NT	5	NT	NT	NT	NT	NT	NT
Y	ACET		5	0	COC; No RBSL	--	30000	0.000001	0.00
Y	AG		5	0	COC; No RBSL	--	9200	0.000415	0.12
Y	AL		5	0	COC; No RBSL	--	10000000	0.001417	0.42
Y	AS		5	2 9	2.9E-06	53.06	550	0.015153	4.46
Y	BA		5	0	COC; No RBSL	--	130000	0.001640	0.48
Y	BE		5	1.2	5.5E-07	10.23	9200	0.000072	0.02
N	C25	NT	5	NT	NT	NT	NT	NT	NT
N	C27	NT	5	NT	NT	NT	NT	NT	NT
N	C28	NT	5	NT	NT	NT	NT	NT	NT
N	C29	NT	5	NT	NT	NT	NT	NT	NT
N	CA	EN	5	EN	EN	EN	EN	EN	NE
Y	CCL3F		5	0	COC; No RBSL	--	90000	0.000000	0.00
Y	CD		5	1500	1.4E-09	0.03	920	0.002217	0.65
Y	CH2CL2		5	11	9.1E-10	0.02	18000	0.000001	0.00
Y	CO		5	0	COC; No RBSL	--	11000	0.000512	0.15
Y	CR		5	230	6.4E-07	11.74	920	0.158937	46.77
Y	CU		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	CYN		5	0	COC; No RBSL	--	37000	0.000015	0.00
Y	DBZFUR		5	0	COC; No RBSL	--	1200	0.000092	0.03
Y	DEP		5	0	COC; No RBSL	--	240000	0.000002	0.00
Y	DNBP		5	0	COC; No RBSL	--	30000	0.000031	0.01
N	FE	EN	5	EN	EN	EN	EN	EN	NE
N	GSITOS	NT	5	NT	NT	NT	NT	NT	NT
Y	HG		5	0	COC; No RBSL	--	550	0.000200	0.06
N	K	EN	5	EN	EN	EN	EN	EN	NE
Y	MEC6H5		5	0	COC; No RBSL	--	1600	0.000005	0.00
N	MG	EN	5	EN	EN	EN	EN	EN	NE
Y	MN		5	0	COC; No RBSL	--	9200	0.044144	12.99
Y	NA	EN	5	EN	EN	EN	EN	EN	NE
Y	NAP		5	0	COC; No RBSL	--	430	0.001395	0.41
Y	NI		5	0	COC; No RBSL	--	37000	0.000754	0.22
N	OMCTSX	NT	5	NT	NT	NT	NT	NT	NT
Y	PB		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB260		5	0.04	1.4E-06	24.93	0	COC; No RBSL	--
Y	PHANTR		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PHTHAN	NT	5	NT	NT	NT	NT	NT	NT
Y	SB		5	0	COC; No RBSL	--	730	0.008536	2.51
Y	SE		5	0	COC; No RBSL	--	9200	0.000015	0.00
N	TCLTFE	NT	5	NT	NT	NT	NT	NT	NT
Y	TL		5	0	COC; No RBSL	--	150	0.101413	29.85
Y	V		5	0	COC; No RBSL	--	13000	0.002342	0.69
Y	ZN		5	0	COC; No RBSL	--	550000	0.000486	0.14
					TOTAL RISK 5 4E-06	100.00		HI 0 339795	100.00

Table 2-3 Total Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	24DNT		8	80	1	1	1	1	0.238	0.235
Y	AG		8	40	3	3	8	8	0.324	0.114
Y	AL		8	40	40	0	100	0	12190.5	3411.499
Y	AS		8	40	40	0	100	0	8.482	4.945
Y	BA		8	40	40	0	100	0	356.615	679.25
Y	BE		8	40	27	0	68	0	0.503	0.215
N	C16A	NT	8	1	1	1	100	100	1.2	
N	C27	NT	8	2	2	2	100	100	0.33	0.014
N	C29	NT	8	5	5	5	100	100	0.592	0.233
Y	C6H6		8	40	1	1	3	3	0.731	0.118
N	CA	EN	8	40	40	0	100	0	111615	29943.13
Y	CCL3F		8	40	6	6	15	15	0.001	0.002
Y	CD		8	40	17	10	43	25	1.016	1.478
Y	CO		8	40	40	0	100	0	5.445	1.265
Y	CR		8	40	40	2	100	5	20.526	13.153
Y	CU		8	40	40	12	100	30	59.293	112.045
N	FE	EN	8	40	40	0	100	0	12617.75	3846.939
Y	HG		8	40	26	6	65	15	0.077	0.121
Y	HMX		8	40	1	1	3	3	0.388	0.346
N	K	EN	8	40	40	0	100	0	3764.375	1623.251
Y	MEC6H5		8	40	1	1	3	3	0.38	0.061
N	MG	EN	8	40	40	16	100	40	16215.75	7591.312
Y	MN		8	40	40	0	100	0	406.113	109.981
N	NA	EN	8	40	40	1	100	3	1544.05	1220.949
Y	NI		8	40	40	2	100	5	19.156	8.209
N	OMCTSX	NT	8	2	2	2	100	100	0.051	0.011
Y	PB		8	40	40	6	100	15	26.64	42.738
Y	PETN		8	40	8	8	20	20	0.523	1.058
Y	PHANTR		8	40	1	1	3	3	16.09	2.596
Y	SB		8	40	1	1	3	3	4.118	3.467
Y	TL		8	40	29	0	73	0	21.615	12.762
Y	V		8	40	40	0	100	0	21.188	6.121
Y	ZN		8	40	40	10	100	25	237.925	537.724

Table 2-3 Total Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	24DNT		8	2.31	2.31	2.31		1.6644	0.282	0.282	EPC = UCL
Y	AG		8	0.45	0.837	0.683	0.205	1.6849	0.354	0.354	EPC = UCL
Y	AL		8	4200	19200	12190.5	3411.499	1.6849	13099.344	13099.344	EPC = UCL
Y	AS		8	3.15	25	8.482	4.945	1.6849	9.799	9.799	EPC = UCL
Y	BA		8	83.2	4300	356.615	679.25	1.6849	537.571	537.571	EPC = UCL
Y	BE		8	0.322	0.901	0.625	0.148	1.6849	0.56	0.56	EPC = UCL
N	C16A	NT	8	1.2	1.2	1.2		0	1.2	1.2	EPC = MAX
N	C27	NT	8	0.32	0.34	0.33		6.3138	0.393	0.34	EPC = MAX
N	C29	NT	8	0.43	1	0.592	0.233	2.1318	0.814	0.814	EPC = UCL
Y	C6H6		8	0.005	0.005	0.005		1.6849	0.762	0.005	EPC = MAX
N	CA	EN	8	28300	190000	111615	29943.13	1.6849	119592.032	119592.032	EPC = UCL
Y	CCL3F		8	0.006	0.008	0.007	0.001	1.6849	0.002	0.002	EPC = UCL
Y	CD		8	0.415	6.43	1.917	1.955	1.6849	1.41	1.41	EPC = UCL
Y	CO		8	3.1	8.35	5.445	1.265	1.6849	5.782	5.782	EPC = UCL
Y	CR		8	8.95	75.8	20.526	13.153	1.6849	24.03	24.03	EPC = UCL
Y	CU		8	5.54	557	59.293	112.045	1.6849	89.142	89.142	EPC = UCL
N	FE	EN	8	5810	22100	12617.75	3846.939	1.6849	13642.598	13642.598	EPC = UCL
Y	HG		8	0.029	0.591	0.112	0.138	1.6849	0.109	0.109	EPC = UCL
Y	HMX		8	2.52	2.52	2.52		1.6849	0.48	0.48	EPC = UCL
N	K	EN	8	1000	7400	3764.375	1623.251	1.6849	4196.819	4196.819	EPC = UCL
Y	MEC6H5		8	0.002	0.002	0.002		1.6849	0.396	0.002	EPC = MAX
N	MG	EN	8	9930	58000	16215.75	7591.312	1.6849	18238.122	18238.122	EPC = UCL
Y	MN		8	159	634	406.113	109.981	1.6849	435.413	435.413	EPC = UCL
N	NA	EN	8	250	5730	1544.05	1220.949	1.6849	1869.318	1869.318	EPC = UCL
Y	NI		8	11.3	57.9	19.156	8.209	1.6849	21.343	21.343	EPC = UCL
N	OMCTSX	NT	8	0.043	0.059	0.051		6.3138	0.1	0.059	EPC = MAX
Y	PB		8	7.12	240	26.64	42.738	1.6849	38.026	38.026	EPC = UCL
Y	PETN		8	2.6	2.64	2.613	0.016	1.6849	0.805	0.805	EPC = UCL
Y	PHANTR		8	0.082	0.082	0.082		1.6849	18.782	0.082	EPC = MAX
Y	SB		8	25.5	25.5	25.5		1.6849	5.042	5.042	EPC = UCL
Y	TL		8	20.7	35.2	29.186	3.312	1.6849	25.015	25.015	EPC = UCL
Y	V		8	11.2	38.4	21.188	6.121	1.6849	22.819	22.819	EPC = UCL
Y	ZN		8	30.5	2820	237.925	537.724	1.6849	381.178	381.178	EPC = UCL

Table 2-3 Total Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
Y	24DNT		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	AG		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	AL		8	0	COC; No RBSL	--	77000	0.170121351	3.35
Y	AS		8	0.36	2.72194E-05	87.42	23	0.426043478	8.38
Y	BA		8	0	COC; No RBSL	--	5400	0.099550185	1.96
Y	BE		8	0.15	3.73333E-06	11.99	390	0.001435897	0.03
N	C16A	NT	8	NT	NT	NT	NT	NT	NT
N	C27	NT	8	NT	NT	NT	NT	NT	NT
N	C29	NT	8	NT	NT	NT	NT	NT	NT
Y	C6H6		8	0.52	9.61538E-09	0.03	0	COC; No RBSL	--
N	CA	EN	8	EN	EN	EN	EN	EN	EN
Y	CCL3F		8	0	COC; No RBSL	--	14000	1.42857E-07	0.00
Y	CD		8	920	1.53261E-09	0.00	39	0.036153846	0.71
Y	CO		8	0	COC; No RBSL	--	460	0.012569565	0.25
Y	CR		8	140	1.71643E-07	0 55	390	0.061615385	1.21
Y	CU		8	0	COC; No RBSL	--	0	COC; No RBSL	--
N	FE	EN	8	EN	EN	EN	EN	EN	EN
Y	HG		8	0	COC; No RBSL	--	23	0.00473913	0.09
Y	HMX		8	0	COC; No RBSL	--	2400	0.0002	0.00
N	K	EN	8	EN	EN	EN	EN	EN	EN
Y	MEC6H5		8	0	COC; No RBSL	--	1000	0.000002	0.00
N	MG	EN	8	0	Not a COC	--	0	Not a COC	--
Y	MN		8	EN	EN	EN	EN	EN	EN
N	NA	EN	8	EN	EN	EN	EN	EN	EN
Y	NI		8	0	COC, No RBSL	--	1500	0.014228667	0.28
N	OMCTSX	NT	8	NT	NT	NT	NT	NT	NT
Y	PB		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		8		COC; No RBSL	--		COC; No RBSL	--
Y	PHANTR		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	SB		8	0	COC; No RBSL	--	31	0.162645161	3.20
Y	TL		8	0	COC; No RBSL	--	6.2	4.034677419	79.38
Y	V		8	0	COC; No RBSL	--	540	0.042257407	0.83
Y	ZN		8	0	COC; No RBSL	--	23000	0.016572957	0.33
				TOTAL RISK	3.1E-05	100.00		HI 5.082813	100.00

Table 2-3 Total Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
Y	24DNT		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	AG		8	0	COC; No RBSL	--	9200	3.84783E-05	0.02
Y	AL		8	0	COC; No RBSL	--	10000000	0.001309934	0.57
Y	AS		8	2.9	3.37897E-06	85.40	550	0.017816364	7.80
Y	BA		8	0	COC; No RBSL	--	130000	0.004135162	1.81
Y	BE		8	1.2	4.66667E-07	11.79	9200	6.08696E-05	0.03
N	C16A	NT	8	NT	NT	NT	NT	NT	NT
N	C27	NT	8	NT	NT	NT	NT	NT	NT
N	C29	NT	8	NT	NT	NT	NT	NT	NT
Y	C6H6		8	0.9	5.55556E-09	0.14	0	COC; No RBSL	--
N	CA	EN	8	EN	EN	EN	EN	EN	EN
Y	CCL3F		8	0	COC; No RBSL	--	90000	2.22222E-08	0.00
Y	CD		8	1500	9.4E-10	0.02	920	0.001532609	0.67
Y	CO		8	0	COC; No RBSL	--	11000	0.000525636	0.23
Y	CR		8	230	1.04478E-07	2.64	920	0.026119565	11.43
Y	CU		8	0	COC; No RBSL	--	0	COC; No RBSL	--
N	FE	EN	8	EN	EN	EN	EN	EN	EN
Y	HG		8	0	COC; No RBSL	--	550	0.000198182	0.09
Y	HMX		8	0	COC; No RBSL	--	15000	0.000032	0.01
N	K	EN	8	EN	EN	EN	EN	EN	EN
Y	MEC6H5		8	0	COC; No RBSL	--	1600	0.00000125	0.00
N	MG	EN	8	0	Not a COC	--	0	Not a COC	--
Y	MN		8	EN	EN	EN	EN	EN	EN
N	NA	EN	8	EN	EN	EN	EN	EN	EN
Y	NI		8	0	COC; No RBSL	--	37000	0.000576838	0.25
N	OMCTSX	NT	8	NT	NT	NT	NT	NT	NT
Y	PB		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		8		COC; No RBSL	--		COC; No RBSL	--
Y	PHANTR		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	SB		8	0	COC; No RBSL	--	730	0.006906849	3.02
Y	TL		8	0	COC; No RBSL	--	150	0.166766667	72.99
Y	V		8	0	COC; No RBSL	--	13000	0.001755308	0.77
Y	ZN		8	0	COC; No RBSL	--	550000	0.000693051	0.30
					TOTAL RISK 4.0E-06	100.00		HI 0.228469	100.00

Table 2-3 Total Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
N	17PTCE	NT	9	SOIL	MERGED	1	1	1	100	100	2.1	
Y	ACET		9	SOIL	MERGED	131	3	3	2	2	4.153	0.635
Y	AL		9	SOIL	MERGED	131	131	1	100	1	12847.099	4980.212
Y	AS		9	SOIL	MERGED	131	131	2	100	2	9.786	11.715
Y	B2EHP		9	SOIL	MERGED	131	3	3	2	2	151.514	22.863
Y	BA		9	SOIL	MERGED	131	131	0	100	0	192.376	56.49
Y	BE		9	SOIL	MERGED	131	117	16	89	12	0.654	0.34
N	C16A	NT	9	SOIL	MERGED	2	2	2	100	100	0.42	0.127
N	C27	NT	9	SOIL	MERGED	3	3	3	100	100	0.577	0.225
N	C29	NT	9	SOIL	MERGED	9	9	9	100	100	0.691	0.3
N	CA	EN	9	SOIL	MERGED	131	131	0	100	0	117025.954	33364.743
Y	CCL3F		9	SOIL	MERGED	131	14	14	11	11	0.001	0.002
Y	CD		9	SOIL	MERGED	131	44	3	34	2	76336.345	873704.015
Y	CL6BZ		9	SOIL	MERGED	131	2	2	2	2	16.261	1.928
Y	CO		9	SOIL	MERGED	131	130	1	99	1	5.415	1.348
Y	CR		9	SOIL	MERGED	131	130	0	99	0	15.854	4.099
Y	CU		9	SOIL	MERGED	131	131	3	100	2	20.791	83.452
Y	DNBP		9	SOIL	MERGED	131	19	19	15	15	26.172	10.582
N	DOAD	NT	9	SOIL	MERGED	1	1	1	100	100	5.1	
N	ETOH	NT	9	SOIL	MERGED	3	3	3	100	100	0.01	0.003
N	FE	EN	9	SOIL	MERGED	131	131	0	100	0	12305.076	3111.44
Y	HG		9	SOIL	MERGED	131	55	2	42	2	0.03	0.037
Y	IMPA		9	SOIL	MERGED	131	1	1	1	1	0.642	1.308
N	K	EN	9	SOIL	MERGED	131	131	1	100	1	4045.863	1459.188
Y	MEC6H5		9	SOIL	MERGED	132	12	12	9	9	0.363	0.125
N	MG	EN	9	SOIL	MERGED	131	131	20	100	15	13070.076	3243.529
Y	MN		9	SOIL	MERGED	131	131	5	100	4	410.297	123.509
Y	MPA		9	SOIL	MERGED	131	2	2	2	2	1.019	0.228
N	NA	EN	9	SOIL	MERGED	131	131	0	100	0	1377.553	905.02
Y	NI		9	SOIL	MERGED	131	131	0	100	0	15.321	4.024
N	OMCTSX	NT	9	SOIL	MERGED	5	5	5	100	100	0.034	0.017
Y	PB		9	SOIL	MERGED	131	131	8	100	6	17.788	23.942
Y	PCB248		9	SOIL	MERGED	131	3	3	6	6	0.047	0.047
Y	PCB254		9	SOIL	MERGED	131	1	1	2	2	0.046	0.055
Y	SB		9	SOIL	MERGED	131	6	2	5	2	76339.755	873703.715
Y	SE		9	SOIL	MERGED	131	2	2	2	2	0.127	0.016
N	TCLTFE	NT	9	SOIL	MERGED	5	5	5	100	100	0.01	0.002
N	TCOS	NT	9	SOIL	MERGED	1	1	1	100	100	0.43	
Y	TL		9	SOIL	MERGED	131	82	0	63	0	13.141	11.79
Y	V		9	SOIL	MERGED	131	131	0	100	0	23.785	8.407
Y	ZN		9	SOIL	MERGED	131	131	1	100	1	57.25	30.644

Table 2-3 Total Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
N	17PTCE	NT	9	SOIL	MERGED	2.1	2.1	2.1		0	2.1	2.1	EPC = MAX
Y	ACET		9	SOIL	MERGED	0.02	0.022	0.021	0.001	1.64	4.244	0.022	EPC = MAX
Y	AL		9	SOIL	MERGED	1400	50400	12847.099	4980.212	1.64	13560.701	13560.701	EPC = UCL
Y	AS		9	SOIL	MERGED	1.53	97	9.786	11.715	1.64	11.465	11.465	EPC = UCL
Y	B2EHP		9	SOIL	MERGED	0.98	5.6	2.76	2.486	1.64	154.79	5.6	EPC = MAX
Y	BA		9	SOIL	MERGED	13.8	467	192.376	56.49	1.64	200.47	200.47	EPC = UCL
Y	BE		9	SOIL	MERGED	0.306	1.67	0.702	0.327	1.64	0.703	0.703	EPC = UCL
N	C16A	NT	9	SOIL	MERGED	0.33	0.51	0.42		6.3138	0.987	0.51	EPC = MAX
N	C27	NT	9	SOIL	MERGED	0.33	0.77	0.577	0.225	2.92	0.956	0.77	EPC = MAX
N	C29	NT	9	SOIL	MERGED	0.33	1.2	0.691	0.3	1.8595	0.877	0.877	EPC = UCL
N	CA	EN	9	SOIL	MERGED	10100	200000	117025.954	33364.743	1.64	121806.703	121806.703	EPC = UCL
Y	CCL3F		9	SOIL	MERGED	0.006	0.011	0.007	0.002	1.64	0.001	0.001	EPC = UCL
Y	CD		9	SOIL	MERGED	0.414	3.39	0.707	0.478	1.64	201527.179	3.39	EPC = MAX
Y	CL6BZ		9	SOIL	MERGED	0.58	1.1	0.84		1.64	16.537	1.1	EPC = MAX
Y	CO		9	SOIL	MERGED	1.33	8.87	5.451	1.287	1.64	5.608	5.608	EPC = UCL
Y	CR		9	SOIL	MERGED	6.65	29.2	15.968	3.9	1.64	16.441	16.441	EPC = UCL
Y	CU		9	SOIL	MERGED	0.793	966	20.791	83.452	1.64	32.749	32.749	EPC = UCL
Y	DNBP		9	SOIL	MERGED	0.082	10	0.66	2.263	1.64	27.688	10	EPC = MAX
N	DOAD	NT	9	SOIL	MERGED	5.1	5.1	5.1		0	5.1	5.1	EPC = MAX
N	ETOH	NT	9	SOIL	MERGED	0.007	0.012	0.01	0.003	2.92	0.015	0.012	EPC = MAX
N	FE	EN	9	SOIL	MERGED	1760	21600	12305.076	3111.44	1.64	12750.906	12750.906	EPC = UCL
Y	HG		9	SOIL	MERGED	0.027	0.361	0.053	0.048	1.64	0.035	0.035	EPC = UCL
Y	IMPA		9	SOIL	MERGED	15.5	15.5	15.5		1.64	0.829	0.829	EPC = UCL
N	K	EN	9	SOIL	MERGED	418	8650	4045.863	1459.188	1.64	4254.946	4254.946	EPC = UCL
Y	MEC6H5		9	SOIL	MERGED	0.001	1.1	0.094	0.317	1.64	0.381	0.381	EPC = UCL
N	MG	EN	9	SOIL	MERGED	1970	24400	13070.076	3243.529	1.64	13534.833	13534.833	EPC = UCL
Y	MN		9	SOIL	MERGED	35.4	686	410.297	123.509	1.64	427.994	427.994	EPC = UCL
Y	MPA		9	SOIL	MERGED	0.923	3.61	2.267		1.64	1.052	1.052	EPC = UCL
N	NA	EN	9	SOIL	MERGED	380	4330	1377.553	905.02	1.64	1507.231	1507.231	EPC = UCL
Y	NI		9	SOIL	MERGED	1.96	28	15.321	4.024	1.64	15.898	15.898	EPC = UCL
N	OMCTSX	NT	9	SOIL	MERGED	0.008	0.054	0.034	0.017	2.1318	0.05	0.05	EPC = UCL
Y	PB		9	SOIL	MERGED	2.19	210	17.788	23.942	1.64	21.219	21.219	EPC = UCL
Y	PCB248		9	SOIL	MERGED	0.149	0.51	0.301	0.187	1.64	0.054	0.054	EPC = UCL
Y	PCB254		9	SOIL	MERGED	0.67	0.67	0.67		1.64	0.054	0.054	EPC = UCL
Y	SB		9	SOIL	MERGED	8.85	13.1	10.873	1.517	1.64	201530.546	13.1	EPC = MAX
Y	SE		9	SOIL	MERGED	0.247	0.262	0.255		1.64	0.129	0.129	EPC = UCL
N	TCLTFE	NT	9	SOIL	MERGED	0.007	0.011	0.01	0.002	2.1318	0.012	0.011	EPC = MAX
N	TCOS	NT	9	SOIL	MERGED	0.43	0.43	0.43		0	0.43	0.43	EPC = MAX
Y	TL		9	SOIL	MERGED	4.43	33.3	20.005	9.777	1.64	14.83	14.83	EPC = UCL
Y	V		9	SOIL	MERGED	5.55	54.5	23.785	8.407	1.64	24.99	24.99	EPC = UCL
Y	ZN		9	SOIL	MERGED	6.96	366	57.25	30.644	1.64	61.641	61.641	EPC = UCL

Table 2-3 Total Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
N	17PTCE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	ACET		9	SOIL	MERGED	0	COC; No RBSL	--	4700	4.68085E-06	0.00
Y	AL		9	SOIL	MERGED	0	COC; No RBSL	--	77000	0.176113	3.54
Y	AS		9	SOIL	MERGED	0.36	3.18472E-05	73.96	23	0.498478261	10.01
Y	B2EHP		9	SOIL	MERGED	22	2.54545E-07	0.59	940	0.005957447	0.12
Y	BA		9	SOIL	MERGED	0	COC; No RBSL	--	5400	0.037124074	0.75
Y	BE		9	SOIL	MERGED	0.15	4.68667E-06	10.88	390	0.001802564	0.04
N	C16A	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C29	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		9	SOIL	MERGED	0	COC; No RBSL	--	14000	7.14286E-08	0.00
Y	CD		9	SOIL	MERGED	920	3.68478E-09	0.01	39	0.086923077	1.75
Y	CL6BZ		9	SOIL	MERGED	0.19	5.78947E-06	13.45	38	0.028947368	0.58
Y	CO		9	SOIL	MERGED	0	COC; No RBSL	--	460	0.012191304	0.24
Y	CR		9	SOIL	MERGED	140	1.17436E-07	0.27	390	0.04215641	0.85
Y	CU		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	DNBP		9	SOIL	MERGED	0	COC; No RBSL	--	4700	0.00212766	0.04
N	DOAD	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	ETOH	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		9	SOIL	MERGED	0	COC; No RBSL	--	23	0.001521739	0.03
Y	IMPA		9	SOIL	MERGED	0	COC; No RBSL	--	4700	0.000176383	0.00
N	K	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC6H5		9	SOIL	MERGED	0	COC; No RBSL	--	1000	0.000381	0.01
N	MG	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MN		9	SOIL	MERGED	0	COC; No RBSL	--	390	1.097420513	22.03
Y	MPA		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	NA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		9	SOIL	MERGED	0	COC; No RBSL	--	1500	0.010598667	0.21
N	OMCTSX	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	PB		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB248		9	SOIL	MERGED	0.15	0.00000036	0.84	0.94	0.057446809	1.15
Y	PCB254		9	SOIL	MERGED	0	COC; No RBSL	--	0.94	0.057446809	1.15
Y	SB		9	SOIL	MERGED	0	COC; No RBSL	--	31	0.422580645	8.48
Y	SE		9	SOIL	MERGED	0	COC; No RBSL	--	390	0.000330769	0.01
N	TCLTFE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TCOS	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	TL		9	SOIL	MERGED	0	COC; No RBSL	--	6.2	2.391935484	48.02
Y	V		9	SOIL	MERGED	0	COC; No RBSL	--	540	0.046277778	0.93
Y	ZN		9	SOIL	MERGED	0	COC; No RBSL	--	23000	0.002680043	0.05
							TOTAL RISK	4.3059E-05	100.00	HI	4.980623	100.00

Table 2-3 Total Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
N	17PTCE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	ACET		9	SOIL	MERGED	0	COC; No RBSL	- -	30000	7.33333E-07	0.00
Y	AL		9	SOIL	MERGED	0	COC; No RBSL	- -	10000000	0.00135607	0.60
Y	AS		9	SOIL	MERGED	2.9	3.95345E-06	57.21	550	0.020845455	9.19
Y	B2EHP		9	SOIL	MERGED	60	9.33333E-08	1.35	6000	0.000933333	0.41
Y	BA		9	SOIL	MERGED	0	COC; No RBSL	- -	130000	0.001542077	0.68
Y	BE		9	SOIL	MERGED	1.2	5.85833E-07	8.48	9200	7.6413E-05	0.03
N	C16A	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C29	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		9	SOIL	MERGED	0	COC; No RBSL	- -	90000	1.11111E-08	0.00
Y	CD		9	SOIL	MERGED	1500	2.26E-09	0.03	920	0.003684783	1.62
Y	CL6BZ		9	SOIL	MERGED	0.53	2.07547E-06	30.03	240	0.004583333	2.02
Y	CO		9	SOIL	MERGED	0	COC; No RBSL	- -	11000	0.000509818	0.22
Y	CR		9	SOIL	MERGED	230	7.14826E-08	1.03	920	0.017870652	7.88
Y	CU		9	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	DNBP		9	SOIL	MERGED	0	COC; No RBSL	- -	30000	0.000333333	0.15
N	DOAD	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	ETOH	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		9	SOIL	MERGED	0	COC; No RBSL	- -	550	6.36364E-05	0.03
Y	IMPA		9	SOIL	MERGED	0	COC; No RBSL	- -	30000	2.76333E-05	0.01
N	K	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC6H5		9	SOIL	MERGED	0	COC; No RBSL	- -	1600	0.000238125	0.10
N	MG	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MN		9	SOIL	MERGED	0	COC; No RBSL	- -	9200	0.046521087	20.51
Y	MPA		9	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	NA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		9	SOIL	MERGED	0	COC; No RBSL	- -	37000	0.000429676	0.19
N	OMCTSX	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	PB		9	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	PCB248		9	SOIL	MERGED	0.42	1.28571E-07	1.86	6	0.009	3.97
Y	PCB254		9	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	SB		9	SOIL	MERGED	0	COC; No RBSL	- -	730	0.017945205	7.91
Y	SE		9	SOIL	MERGED	0	COC; No RBSL	- -	9200	1.40217E-05	0.01
N	TCLTFE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TCOS	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	TL		9	SOIL	MERGED	0	COC; No RBSL	- -	150	0.098866667	43.58
Y	V		9	SOIL	MERGED	0	COC; No RBSL	- -	13000	0.001922308	0.85
Y	ZN		9	SOIL	MERGED	0	COC; No RBSL	- -	550000	0.000112075	0.05
						TOTAL RISK	6.9E-06	100.00		HI 0.226876	100.00

Table 2-3 Total Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	13DNB		30	SOIL	MERGED	21	1	1	5	5	0.251	0.013
Y	2MNAP		30	SOIL	MERGED	21	1	1	5	5	23.338	5.325
N	2TMPD	NT	30	SOIL	MERGED	3	3	3	100	100	0.697	0.101
Y	AG		30	SOIL	MERGED	21	3	2	14	10	0.355	0.215
Y	AL		30	SOIL	MERGED	21	21	0	100	0	15816.19	3285.347
Y	AS		30	SOIL	MERGED	21	21	2	100	10	41.853	117.195
Y	BA		30	SOIL	MERGED	21	21	0	100	0	178.333	42.67
Y	BE		30	SOIL	MERGED	21	17	0	81	0	0.676	0.272
N	C12	NT	30	SOIL	MERGED	1	1	1	100	100	50	
N	C13	NT	30	SOIL	MERGED	3	3	3	100	100	20.28	34.399
N	C14	NT	30	SOIL	MERGED	3	3	3	100	100	33.613	57.493
N	C16	NT	30	SOIL	MERGED	3	3	3	100	100	0.63	0.266
N	C17	NT	30	SOIL	MERGED	3	3	3	100	100	0.81	0.435
N	C18	NT	30	SOIL	MERGED	2	2	2	100	100	0.545	0.276
N	C25	NT	30	SOIL	MERGED	1	1	1	100	100	0.44	
N	C27	NT	30	SOIL	MERGED	3	3	3	100	100	0.877	0.497
N	CA	EN	30	SOIL	MERGED	21	21	0	100	0	103333.333	12646.475
Y	CCL3F		30	SOIL	MERGED	20	2	2	10	10	0.001	0.002
Y	CD		30	SOIL	MERGED	21	13	12	62	57	1.651	2.506
Y	CH2CL2		30	SOIL	MERGED	20	3	3	15	15	2.552	1.095
N	CHOLA	NT	30	SOIL	MERGED	1	1	1	100	100	1.2	
Y	CO		30	SOIL	MERGED	21	21	1	100	5	6.264	1.649
Y	CR		30	SOIL	MERGED	21	21	1	100	5	24.533	19.009
Y	CU		30	SOIL	MERGED	21	21	5	100	24	49.567	83.559
N	DH2MN	NT	30	SOIL	MERGED	1	1	1	100	100	20	
Y	DNBP		30	SOIL	MERGED	21	10	10	48	48	16.131	15.443
N	DOAD	NT	30	SOIL	MERGED	4	4	4	100	100	0.5	0.124
N	FE	EN	30	SOIL	MERGED	21	21	2	100	10	17623.81	7504.259
Y	HG		30	SOIL	MERGED	21	2	0	10	0	0.016	0.009
N	K	EN	30	SOIL	MERGED	21	21	6	100	29	6998.095	1402.336
Y	MEC6H5		30	SOIL	MERGED	20	2	2	10	10	0.351	0.12
N	MG	EN	30	SOIL	MERGED	21	21	21	100	100	24185.714	5823.855
Y	MN		30	SOIL	MERGED	21	21	0	100	0	484.048	86.29
N	NA	EN	30	SOIL	MERGED	21	21	3	100	14	4894.286	5330.152
Y	NAP		30	SOIL	MERGED	21	1	1	5	5	17.622	4.022
Y	NI		30	SOIL	MERGED	21	21	3	100	14	22.529	6.889
Y	PB		30	SOIL	MERGED	21	21	4	100	19	77.317	181.09
Y	PETN		30	SOIL	MERGED	21	12	12	57	57	1.525	1.353
Y	PHANTR		30	SOIL	MERGED	21	1	1	5	5	15.716	3.591
Y	PYR		30	SOIL	MERGED	21	1	1	5	5	15.717	3.587
Y	SB		30	SOIL	MERGED	21	1	0	5	0	3.91	1.556
Y	SE		30	SOIL	MERGED	21	1	1	5	5	0.144	0.086
N	TCLTFE	NT	30	SOIL	MERGED	11	11	11	100	100	0.008	0.002
Y	TL		30	SOIL	MERGED	21	14	0	67	0	12.72	13.529
Y	V		30	SOIL	MERGED	21	21	0	100	0	27.524	5.694
Y	ZN		30	SOIL	MERGED	21	21	4	100	19	182.6	192.865

Table 2-3 Total Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	13DNB		30	SOIL	MERGED	0.309	0.309	0.309		1.7247	0.256	0.256	EPC = UCL
Y	2MNAP		30	SOIL	MERGED	0.1	0.1	0.1		1.7247	25.342	0.1	EPC = MAX
N	2TMPD	NT	30	SOIL	MERGED	0.59	0.79	0.697	0.101	2.92	0.867	0.79	EPC = MAX
Y	AG		30	SOIL	MERGED	0.385	1.27	0.717	0.482	1.7247	0.436	0.436	EPC = UCL
Y	AL		30	SOIL	MERGED	9640	22100	15816.19	3285.347	1.7247	17052.664	17052.664	EPC = UCL
Y	AS		30	SOIL	MERGED	6.13	540	41.853	117.195	1.7247	85.961	85.961	EPC = UCL
Y	BA		30	SOIL	MERGED	129	287	178.333	42.67	1.7247	194.392	194.392	EPC = UCL
Y	BE		30	SOIL	MERGED	0.492	1.17	0.776	0.191	1.7247	0.778	0.778	EPC = UCL
N	C12	NT	30	SOIL	MERGED	50	50	50		0	50	50	EPC = MAX
N	C13	NT	30	SOIL	MERGED	0.4	60	20.28	34.399	2.92	78.272	60	EPC = MAX
N	C14	NT	30	SOIL	MERGED	0.4	100	33.613	57.493	2.92	130.538	100	EPC = MAX
N	C16	NT	30	SOIL	MERGED	0.35	0.88	0.63	0.266	2.92	1.078	0.88	EPC = MAX
N	C17	NT	30	SOIL	MERGED	0.47	1.3	0.81	0.435	2.92	1.543	1.3	EPC = MAX
N	C18	NT	30	SOIL	MERGED	0.35	0.74	0.545		6.3138	1.777	0.74	EPC = MAX
N	C25	NT	30	SOIL	MERGED	0.44	0.44	0.44		0	0.44	0.44	EPC = MAX
N	C27	NT	30	SOIL	MERGED	0.33	1.3	0.877	0.497	2.92	1.715	1.3	EPC = MAX
N	CA	EN	30	SOIL	MERGED	84000	130000	103333.333	12646.475	1.7247	108092.965	108092.965	EPC = UCL
Y	CCL3F		30	SOIL	MERGED	0.007	0.009	0.008		1.7291	0.002	0.002	EPC = UCL
Y	CD		30	SOIL	MERGED	0.917	10.1	2.451	2.939	1.7247	2.594	2.594	EPC = UCL
Y	CH2CL2		30	SOIL	MERGED	0.008	0.015	0.01	0.004	1.7291	2.975	0.015	EPC = MAX
N	CHOLA	NT	30	SOIL	MERGED	1.2	1.2	1.2		0	1.2	1.2	EPC = MAX
Y	CO		30	SOIL	MERGED	3.68	11	6.264	1.649	1.7247	6.885	6.885	EPC = UCL
Y	CR		30	SOIL	MERGED	12.3	104	24.533	19.009	1.7247	31.687	31.687	EPC = UCL
Y	CU		30	SOIL	MERGED	9.7	356	49.567	83.559	1.7247	81.015	81.015	EPC = UCL
N	DH2MN	NT	30	SOIL	MERGED	20	20	20		0	20	20	EPC = MAX
Y	DNBP		30	SOIL	MERGED	0.095	0.69	0.325	0.198	1.7247	21.943	0.69	EPC = MAX
N	DOAD	NT	30	SOIL	MERGED	0.38	0.67	0.5	0.124	2.3534	0.646	0.646	EPC = UCL
N	FE	EN	30	SOIL	MERGED	10100	40000	17623.81	7504.259	1.7247	20448.116	20448.116	EPC = UCL
Y	HG		30	SOIL	MERGED	0.04	0.043	0.042		1.7247	0.019	0.019	EPC = UCL
N	K	EN	30	SOIL	MERGED	3710	8860	6998.095	1402.336	1.7247	7525.879	7525.879	EPC = UCL
Y	MEC8H5		30	SOIL	MERGED	0.001	0.002	0.002		1.7291	0.397	0.002	EPC = MAX
N	MG	EN	30	SOIL	MERGED	16900	39100	24185.714	5823.855	1.7247	26377.582	26377.582	EPC = UCL
Y	MN		30	SOIL	MERGED	303	657	484.048	86.29	1.7247	516.524	516.524	EPC = UCL
N	NA	EN	30	SOIL	MERGED	1060	20400	4894.286	5330.152	1.7247	6900.344	6900.344	EPC = UCL
Y	NAP		30	SOIL	MERGED	0.07	0.07	0.07		1.7247	19.136	0.07	EPC = MAX
Y	NI		30	SOIL	MERGED	11.5	41.5	22.529	6.889	1.7247	25.122	25.122	EPC = UCL
Y	PB		30	SOIL	MERGED	9.65	850	77.317	181.09	1.7247	145.472	145.472	EPC = UCL
Y	PETN		30	SOIL	MERGED	2.59	2.74	2.668	0.041	1.7247	2.034	2.034	EPC = UCL
Y	PHANTR		30	SOIL	MERGED	0.046	0.046	0.046		1.7247	17.068	0.046	EPC = MAX
Y	PYR		30	SOIL	MERGED	0.061	0.061	0.061		1.7247	17.067	0.061	EPC = MAX
Y	SB		30	SOIL	MERGED	10.7	10.7	10.7		1.7247	4.496	4.496	EPC = UCL
Y	SE		30	SOIL	MERGED	0.517	0.517	0.517		1.7247	0.176	0.176	EPC = UCL
N	TCLTFE	NT	30	SOIL	MERGED	0.005	0.012	0.008	0.002	1.8125	0.009	0.009	EPC = UCL
Y	TL		30	SOIL	MERGED	5.67	47.7	18.252	13.517	1.7247	17.812	17.812	EPC = UCL
Y	V		30	SOIL	MERGED	19.7	39.3	27.524	5.694	1.7247	29.667	29.667	EPC = UCL
Y	ZN		30	SOIL	MERGED	42.3	669	182.6	192.865	1.7247	255.187	255.187	EPC = UCL

Table 2-3 Total Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
Y	13DNB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	2MNAP		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2TMPD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	AG		30	SOIL	MERGED	0	COC; No RBSL	--	390	0.001117949	0.01
Y	AL		30	SOIL	MERGED	0	COC; No RBSL	--	77000	0.221463169	2.58
Y	AS		30	SOIL	MERGED	0.36	0.000238781	97.78	23	3.737434783	43.52
Y	BA		30	SOIL	MERGED	0	COC; No RBSL	--	5400	0.035998519	0.42
Y	BE		30	SOIL	MERGED	0.15	5.18667E-06	2.12	390	0.001994872	0.02
N	C12	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C13	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C14	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C16	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C17	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C18	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C25	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		30	SOIL	MERGED	0	COC; No RBSL	--	14000	1.42857E-07	0.00
Y	CD		30	SOIL	MERGED	920	2.81957E-09	0.00	39	0.066512821	0.77
Y	CH2CL2		30	SOIL	MERGED	6	2.5E-09	0.00	2800	5.35714E-06	0.00
N	CHOLA	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	CO		30	SOIL	MERGED	0	COC; No RBSL	--	460	0.014967391	0.17
Y	CR		30	SOIL	MERGED	140	2.26336E-07	0.09	390	0.081248718	0.95
Y	CU		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	DH2MN	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	DNBP		30	SOIL	MERGED	0	COC; No RBSL	--	4700	0.000146809	0.00
N	DOAD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		30	SOIL	MERGED	0	COC; No RBSL	--	23	0.000826087	0.01
N	K	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC8H5		30	SOIL	MERGED	0	COC; No RBSL	--	1000	0.000002	0.00
N	MG	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MN		30	SOIL	MERGED	0	COC; No RBSL	--	390	1.324420513	15.42
N	NA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NAP		30	SOIL	MERGED	0	COC; No RBSL	--	140	0.0005	0.01
Y	NI		30	SOIL	MERGED	0	COC; No RBSL	--	1500	0.016748	0.20
Y	PB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		30	SOIL	MERGED		COC; No RBSL	--		COC; No RBSL	--
Y	PHANTR		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PYR		30	SOIL	MERGED	0	COC; No RBSL	--	1400	4.35714E-05	0.00
Y	SB		30	SOIL	MERGED	0	COC; No RBSL	--	31	0.145032258	1.69
Y	SE		30	SOIL	MERGED	0	COC; No RBSL	--	390	0.000451282	0.01
N	TCLTFE	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	TL		30	SOIL	MERGED	0	COC; No RBSL	--	6.2	2.872903226	33.45
Y	V		30	SOIL	MERGED	0	COC; No RBSL	--	540	0.054938889	0.64
Y	ZN		30	SOIL	MERGED	0	COC; No RBSL	--	23000	0.011095087	0.13
						TOTAL RISK	2.4E-04	100.00		HI 8.587851	100.00

Table 2-3 Total Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
Y	13DNB		30	SOIL	MERGED	0	COC; No RBS	--	0	COC; No RBSL	--
Y	2MNAP		30	SOIL	MERGED	0	COC; No RBS	--	0	COC; No RBSL	--
N	2TMPD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	AG		30	SOIL	MERGED	0	COC; No RBS	--	9200	4.73913E-05	0.01
Y	AL		30	SOIL	MERGED	0	COC; No RBS	--	10000000	0.001705266	0.45
Y	AS		30	SOIL	MERGED	2.9	2.96417E-05	97.41	550	0.156292727	40.89
Y	BA		30	SOIL	MERGED	0	COC; No RBS	--	130000	0.001495323	0.39
Y	BE		30	SOIL	MERGED	1.2	6.48333E-07	2.13	9200	8.45652E-05	0.02
N	C12	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C13	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C14	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C16	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C17	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C18	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C25	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	CCL3F		30	SOIL	MERGED	0	COC; No RBS	--	90000	2.22222E-08	0.00
Y	CD		30	SOIL	MERGED	1500	1.72933E-09	0.01	920	0.002819565	0.74
Y	CH2CL2		30	SOIL	MERGED	11	1.36364E-09	0.00	18000	8.33333E-07	0.00
N	CHOLA	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	CO		30	SOIL	MERGED	0	COC; No RBS	--	11000	0.000625909	0.16
Y	CR		30	SOIL	MERGED	230	1.3777E-07	0.45	920	0.034442391	9.01
Y	CU		30	SOIL	MERGED	0	COC; No RBS	--	0	COC; No RBSL	--
N	DH2MN	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	DNBP		30	SOIL	MERGED	0	COC; No RBS	--	30000	0.000023	0.01
N	DOAD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	HG		30	SOIL	MERGED	0	COC; No RBS	--	550	3.45455E-05	0.01
N	K	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	MEC6H5		30	SOIL	MERGED	0	COC; No RBS	--	1600	0.00000125	0.00
N	MG	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	MN		30	SOIL	MERGED	0	COC; No RBS	--	9200	0.056143913	14.69
N	NA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	NAP		30	SOIL	MERGED	0	COC; No RBS	--	430	0.000162791	0.04
Y	NI		30	SOIL	MERGED	0	COC; No RBS	--	37000	0.000678973	0.18
Y	PB		30	SOIL	MERGED	0	COC; No RBS	--	0	COC; No RBSL	--
Y	PETN		30	SOIL	MERGED		COC; No RBS	--		COC; No RBSL	--
Y	PHANTR		30	SOIL	MERGED	0	COC; No RBS	--	0	COC; No RBSL	--
Y	PYR		30	SOIL	MERGED	0	COC; No RBS	--	9000	6.77778E-06	0.00
Y	SB		30	SOIL	MERGED	0	COC; No RBS	--	730	0.006158904	1.61
Y	SE		30	SOIL	MERGED	0	COC; No RBS	--	9200	1.91304E-05	0.01
N	TCLTFE	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	TL		30	SOIL	MERGED	0	COC; No RBS	--	150	0.118746667	31.07
Y	V		30	SOIL	MERGED	0	COC; No RBS	--	13000	0.002282077	0.60
Y	ZN		30	SOIL	MERGED	0	COC; No RBS	--	550000	0.000463976	0.12
							TOTAL RISK	3.0E-05	100.00	HI	0.382236	100.00

Table 2-3 Total Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	246TNT		31	SOIL	MERGED	14	2	2	14	14	0.301	0.204
Y	AL		31	SOIL	MERGED	16	16	0	100	0	14368.75	2046.694
Y	AS		31	SOIL	MERGED	16	16	0	100	0	11.471	4.485
Y	BA		31	SOIL	MERGED	16	16	0	100	0	120.938	71.505
Y	BE		31	SOIL	MERGED	16	16	0	100	0	0.878	0.233
N	CA	EN	31	SOIL	MERGED	16	16	0	100	0	110006.25	37902.691
Y	CD		31	SOIL	MERGED	16	14	10	88	63	1.045	0.49
Y	CH2CL2		31	SOIL	MERGED	4	1	1	25	25	2.252	1.497
Y	CO		31	SOIL	MERGED	16	16	0	100	0	6.283	0.756
Y	CR		31	SOIL	MERGED	16	16	0	100	0	19.616	2.737
Y	CU		31	SOIL	MERGED	16	16	4	100	25	24.366	18.642
Y	DNBP		31	SOIL	MERGED	4	1	1	25	25	22.96	15.08
N	DOAD	NT	31	SOIL	MERGED	2	2	2	100	100	0.885	0.445
N	FE	EN	31	SOIL	MERGED	16	16	0	100	0	15150	2030.435
Y	HG		31	SOIL	MERGED	16	4	1	25	6	0.034	0.048
N	K	EN	31	SOIL	MERGED	16	16	0	100	0	3858.125	917.564
N	MG	EN	31	SOIL	MERGED	16	16	11	100	69	22153.125	9784.366
Y	MN		31	SOIL	MERGED	16	16	1	100	6	358.625	150.548
N	NA	EN	31	SOIL	MERGED	16	16	0	100	0	1798	716.531
Y	NI		31	SOIL	MERGED	16	16	3	100	19	23.491	4.147
Y	PB		31	SOIL	MERGED	16	16	0	100	0	15.242	4.739
Y	SB		31	SOIL	MERGED	16	2	1	13	6	4.536	2.671
Y	TL		31	SOIL	MERGED	16	15	0	94	0	17.377	8.913
Y	V		31	SOIL	MERGED	16	16	0	100	0	24.128	3.954
Y	ZN		31	SOIL	MERGED	16	16	1	100	6	85.531	24.288

Table 2-3 Total Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	246TNT		31	SOIL	MERGED	0.52	0.958	0.739		1.7709	0.398	0.398	EPC = UCL
Y	AL		31	SOIL	MERGED	10100	18100	14368.75	2046.694	1.753	15265.714	15265.714	EPC = UCL
Y	AS		31	SOIL	MERGED	3.79	20	11.471	4.485	1.753	13.437	13.437	EPC = UCL
Y	BA		31	SOIL	MERGED	39.2	233.5	120.938	71.505	1.753	152.275	152.275	EPC = UCL
Y	BE		31	SOIL	MERGED	0.429	1.15	0.878	0.233	1.753	0.98	0.98	EPC = UCL
N	CA	EN	31	SOIL	MERGED	56100	230000	110006.25	37902.691	1.753	126617.104	126617.104	EPC = UCL
Y	CD		31	SOIL	MERGED	0.617	2.365	1.144	0.438	1.753	1.26	1.26	EPC = UCL
Y	CH2CL2		31	SOIL	MERGED	0.007	0 007	0.007		2.3534	4.014	0.007	EPC = MAX
Y	CO		31	SOIL	MERGED	4.32	7.45	6.283	0.756	1.753	6.614	6.614	EPC = UCL
Y	CR		31	SOIL	MERGED	15.9	24.7	19.616	2.737	1.753	20.815	20.815	EPC = UCL
Y	CU		31	SOIL	MERGED	9.9	76.15	24.366	18.642	1.753	32.536	32.536	EPC = UCL
Y	DNBP		31	SOIL	MERGED	0.34	0.34	0.34		2.3534	40.705	0.34	EPC = MAX
N	DOAD	NT	31	SOIL	MERGED	0.57	1.2	0 885		6.3138	2.872	1.2	EPC = MAX
N	FE	EN	31	SOIL	MERGED	10500	18300	15150	2030.435	1.753	16039.838	16039.838	EPC = UCL
Y	HG		31	SOIL	MERGED	0.036	0.195	0.095	0.069	1.753	0.055	0.055	EPC = UCL
N	K	EN	31	SOIL	MERGED	2090	5510	3858.125	917.564	1.753	4260.247	4260.247	EPC = UCL
N	MG	EN	31	SOIL	MERGED	11200	46400	22153.125	9784.366	1.753	26441.123	26441.123	EPC = UCL
Y	MN		31	SOIL	MERGED	138	678	358.625	150.548	1.753	424.603	424.603	EPC = UCL
N	NA	EN	31	SOIL	MERGED	659	2960	1798	716.531	1.753	2112.02	2112.02	EPC = UCL
Y	NI		31	SOIL	MERGED	16.9	32.2	23.491	4.147	1.753	25.308	25.308	EPC = UCL
Y	PB		31	SOIL	MERGED	9.47	24	15.242	4.739	1.753	17.319	17.319	EPC = UCL
Y	SB		31	SOIL	MERGED	10.2	12.4	11.3		1.753	5.707	5.707	EPC = UCL
Y	TL		31	SOIL	MERGED	6.78	31.7	18.425	8.142	1.753	21.283	21.283	EPC = UCL
Y	V		31	SOIL	MERGED	16.5	31	24.128	3.954	1.753	25.861	25.861	EPC = UCL
Y	ZN		31	SOIL	MERGED	52.1	166	85.531	24.288	1.753	96.175	96.175	EPC = UCL

Table 2-3 Total Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic Risk	Percent of Risk
Y	246TNT		31	SOIL	MERGED	10	3.98E-08	0.09	24	0.016583333	0.29
Y	AL		31	SOIL	MERGED	0	COC; No RBSL	--	77000	0.198256026	3.47
Y	AS		31	SOIL	MERGED	0.36	0.000037325	84.73	23	0.584217391	10.24
Y	BA		31	SOIL	MERGED	0	COC; No RBSL	--	5400	0.028199074	0.49
Y	BE		31	SOIL	MERGED	0.15	6.53333E-06	14.83	390	0.002512821	0.04
N	CA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CD		31	SOIL	MERGED	920	1.36957E-09	0.00	39	0.032307692	0.57
Y	CH2CL2		31	SOIL	MERGED	6	1.16667E-09	0.00	2800	0.0000025	0.00
Y	CO		31	SOIL	MERGED	0	COC; No RBSL	--	460	0.014378261	0.25
Y	CR		31	SOIL	MERGED	140	1.48679E-07	0.34	390	0.053371795	0.94
Y	CU		31	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	DNBP		31	SOIL	MERGED	0	COC; No RBSL	--	4700	7.23404E-05	0.00
N	DOAD	NT	31	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		31	SOIL	MERGED	0	COC; No RBSL	--	23	0.002391304	0.04
N	K	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MG	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MN		31	SOIL	MERGED	0	COC; No RBSL	--	390	1.088725641	19.08
N	NA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		31	SOIL	MERGED	0	COC; No RBSL	--	1500	0.016872	0.30
Y	PB		31	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	SB		31	SOIL	MERGED	0	COC; No RBSL	--	31	0.184096774	3.23
Y	TL		31	SOIL	MERGED	0	COC; No RBSL	--	6.2	3.432741935	60.15
Y	V		31	SOIL	MERGED	0	COC; No RBSL	--	540	0.047890741	0.84
Y	ZN		31	SOIL	MERGED	0	COC; No RBSL	--	23000	0.004181522	0.07
						TOTAL RISK	4.4E-05	100.00		HI 5.706801	100.00

Table 2-3 Total Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic Risk	Percent of Risk
Y	246TNT		31	SOIL	MERGED	28	1.42143E-08	0.26	150	0.002653333	1.05
Y	AL		31	SOIL	MERGED	0	COC; No RBSL	--	10000000	0.001526571	0.60
Y	AS		31	SOIL	MERGED	2.9	4.63345E-06	83.39	550	0.024430909	9.64
Y	BA		31	SOIL	MERGED	0	COC; No RBSL	--	130000	0.001171346	0.46
Y	BE		31	SOIL	MERGED	1.2	8.16667E-07	14.70	9200	0.000106522	0.04
N	CA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CD		31	SOIL	MERGED	1500	8 4E-10	0.02	920	0.001369565	0.54
Y	CH2CL2		31	SOIL	MERGED	11	6.36364E-10	0.01	18000	3.88889E-07	0.00
Y	CO		31	SOIL	MERGED	0	COC; No RBSL	--	11000	0.000601273	0.24
Y	CR		31	SOIL	MERGED	230	9.05E-08	1.63	920	0.022625	8.93
Y	CU		31	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	DNBP		31	SOIL	MERGED	0	COC; No RBSL	--	30000	1.13333E-05	0.00
N	DOAD	NT	31	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		31	SOIL	MERGED	0	COC; No RBSL	--	550	0.0001	0.04
N	K	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MG	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MN		31	SOIL	MERGED	0	COC; No RBSL	--	9200	0.0461525	18.22
N	NA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		31	SOIL	MERGED	0	COC; No RBSL	--	37000	0.000684	0.27
Y	PB		31	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	SB		31	SOIL	MERGED	0	COC; No RBSL	--	730	0.007817808	3.09
Y	TL		31	SOIL	MERGED	0	COC; No RBSL	--	150	0.141886667	56.01
Y	V		31	SOIL	MERGED	0	COC; No RBSL	--	13000	0.001989308	0.79
Y	ZN		31	SOIL	MERGED	0	COC; No RBSL	--	550000	0.000174864	0.07
						TOTAL RISK	5.6E-06	100.00		HI 0.253301	100.00

Attachment 3

Analytes Detected in Soil Samples
Collected from Group 2 SWMUs at Deseret Chemical Depot

Table 3-1 Analytes Detected in Soil Samples Collected at SWMU 3

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
3-GRT-1	AL	0.000	21400.000	UGG	3-TRN-2	FE	0.000	20800.000	UGG
3-GRT-2	AL	0.000	17900.000	UGG	3-TRN-3	FE	0.000	18300.000	UGG
3-TRN-3	AL	0.000	18500.000	UGG	3-GRT-1	GSITOS	0.000	0.640	UGG
3-TRN-4	AL	0.000	18000.000	UGG	3-GRT-2	GSITOS	0.000	0.995	UGG
3-TRN-5	AL	0.000	18700.000	UGG	3-BK-1	HG	0.000	2.700	UGG
3-BK-1	AS	0.000	440.000	UGG	3-BLD-1	HG	0.000	0.149	UGG
3-BLD-2	AS	0.000	58.000	UGG	3-BLD-2	HG	0.000	0.244	UGG
3-BLD-4	AS	0.000	130.000	UGG	3-BLD-3	HG	0.000	0.204	UGG
3-BLD-4	AS	2.000	50.000	UGG	3-BLD-3	HG	2.000	0.297	UGG
3-BLD-5	AS	0.000	410.000	UGG	3-BLD-4	HG	0.000	0.810	UGG
3-GRT-1	AS	0.000	280.000	UGG	3-BLD-4	HG	2.000	0.159	UGG
3-GRT-2	AS	0.000	225.000	UGG	3-BLD-5	HG	0.000	2.800	UGG
3-TRN-1	AS	0.000	340.000	UGG	3-BLD-6	HG	0.000	0.161	UGG
3-TRN-2	AS	0.000	220.000	UGG	3-BLD-7	HG	0.000	0.152	UGG
3-TRN-3	AS	0.000	58.000	UGG	3-GRT-1	HG	0.000	2.300	UGG
3-TRN-4	AS	0.000	57.000	UGG	3-GRT-2	HG	0.000	1.008	UGG
3-TRN-5	AS	0.000	360.000	UGG	3-TRN-1	HG	0.000	1.600	UGG
3-TRN-6	AS	0.000	500.000	UGG	3-TRN-2	HG	0.000	0.346	UGG
3-BLD-5	BE	0.000	1.200	UGG	3-TRN-3	HG	0.000	0.151	UGG
3-GRT-1	BE	0.000	1.220	UGG	3-TRN-4	HG	0.000	0.356	UGG
3-TRN-3	BE	0.000	0.916	UGG	3-TRN-5	HG	0.000	0.770	UGG
3-BLD-6	C16A	0.000	0.350	UGG	3-TRN-6	HG	0.000	1.800	UGG
3-BLD-5	C17	0.000	1.300	UGG	3-GRT-1	K	0.000	10100.000	UGG
3-BLD-1	C27	0.000	0.820	UGG	3-GRT-2	K	0.000	8115.000	UGG
3-BLD-3	C29	0.000	0.560	UGG	3-BLD-1	MG	0.000	16900.000	UGG
3-BLD-1	CA	0.000	160000.000	UGG	3-BLD-2	MG	0.000	18700.000	UGG
3-BLD-2	CA	0.000	170000.000	UGG	3-BLD-3	MG	0.000	23500.000	UGG
3-BLD-3	CA	0.000	180000.000	UGG	3-BLD-6	MG	0.000	16600.000	UGG
3-BLD-3	CD	0.000	1.230	UGG	3-GRT-1	MG	0.000	16700.000	UGG
3-TRN-1	CD	0.000	2.000	UGG	3-BLD-2	MN	2.000	561.000	UGG
3-GRT-1	CO	0.000	7.170	UGG	3-BLD-5	MN	2.000	669.000	UGG
3-GRT-2	CO	0.000	6.960	UGG	3-GRT-1	MN	0.000	737.000	UGG
3-TRN-1	CO	0.000	8.890	UGG	3-TRN-1	MN	0.000	673.000	UGG
3-TRN-3	CO	0.000	7.600	UGG	3-BLD-1	MPA	2.000	2.940	UGG
3-TRN-4	CO	0.000	6.970	UGG	3-BLD-2	MPA	2.000	10.800	UGG
3-TRN-5	CO	0.000	6.980	UGG	3-BLD-5	NA	0.000	2240.000	UGG
3-TRN-6	CO	0.000	7.130	UGG	3-GRT-1	NA	0.000	1760.000	UGG
3-TRN-1	CR	0.000	117.000	UGG	3-TRN-3	NA	0.000	2310.000	UGG
3-TRN-3	CR	0.000	26.500	UGG	3-BLD-5	NI	0.000	22.300	UGG
3-TRN-1	CU	0.000	61.200	UGG	3-GRT-1	NI	0.000	22.300	UGG
3-TRN-2	CU	0.000	26.200	UGG	3-TRN-1	NI	0.000	27.400	UGG
3-BLD-7	CYN	0.000	1.730	UGG	3-BLD-1	OMCTSX	2.000	0.010	UGG
3-BLD-4	DEGLYC	2.000	0.590	UGG	3-BLD-6	OMCTSX	2.000	0.005	UGG
3-BLD-6	DEGLYC	2.000	0.440	UGG	3-BLD-1	PB	0.000	40.000	UGG
3-TRN-2	DNBP	0.000	10.000	UGG	3-BLD-2	PB	0.000	170.000	UGG
3-BLD-1	FANT	0.000	0.120	UGG	3-BLD-5	PB	0.000	37.000	UGG
3-BLD-5	FE	0.000	19800.000	UGG	3-GRT-1	PB	0.000	36.000	UGG
3-GRT-1	FE	0.000	20600.000	UGG	3-TRN-1	PB	0.000	47.000	UGG
3-GRT-2	FE	0.000	18100.000	UGG	3-TRN-2	PB	0.000	130.000	UGG
3-TRN-1	FE	0.000	30800.000	UGG	3-BLD-1	PCB254	0.000	0.118	UGG

Table 3-1 Analytes Detected in Soil Samples Collected at SWMU 3

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
3-BLD-2	PCB254	0.000	0.331	UGG	3-TRN-3	V	0.000	33.600	UGG
3-BLD-2	PCB260	0.000	0.193	UGG	3-TRN-4	V	0.000	33.500	UGG
3-BLD-1	PYR	0.000	0.083	UGG	3-TRN-5	V	0.000	35.300	UGG
3-BLD-5	SB	0.000	15.300	UGG	3-TRN-6	V	0.000	31.500	UGG
3-TRN-1	SB	0.000	10.700	UGG	3-BLD-5	ZN	0.000	144.000	UGG
3-TRN-1	TL	0.000	54.900	UGG	3-TRN-1	ZN	0.000	511.000	UGG
3-GRT-1	V	0.000	32.500	UGG	3-TRN-2	ZN	0.000	820.000	UGG
3-GRT-2	V	0.000	28.350	UGG					

Table 3-2 Analytes Detected in Soil Samples Collected at SWMU 5

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
5-BLD-12	1MNAP	0.000	0.470	UGG	5-BLD-10	CD	0.000	1.800	UGG
5-BLD-1	2CHE1O	0.000	0.410	UGG	5-BLD-11	CD	2.000	0.734	UGG
5-BLD-12	2MNAP	0.000	0.480	UGG	5-BLD-12	CD	0.000	1.050	UGG
5-BLD-6	2MNAP	0.000	0.094	UGG	5-BLD-12	CD	2.000	0.621	UGG
5-BLD-18	2PROL	0.000	0.027	UGG	5-BLD-14	CD	2.000	0.624	UGG
5-BLD-12	2TMPD	0.000	2.300	UGG	5-BLD-15	CD	0.000	1.150	UGG
5-BLD-6	2TMPD	0.000	0.520	UGG	5-BLD-16	CD	0.000	1.430	UGG
5-BLD-7	2TMPD	0.000	2.000	UGG	5-BLD-16	CD	2.000	0.940	UGG
5-BLD-8	ACET	2.000	0.028	UGG	5-BLD-19	CD	2.000	0.666	UGG
5-DCH-2	AG	0.500	8.830	UGG	5-BLD-2	CD	2.000	2.560	UGG
5-PND-1	AG	0.000	7.010	UGG	5-BLD-3	CD	0.000	1.040	UGG
5-PND-1	AG	0.500	26.000	UGG	5-BLD-5	CD	0.000	2.580	UGG
5-PND-2	AG	0.000	78.000	UGG	5-BLD-6	CD	0.000	1.190	UGG
5-PND-2	AG	0.500	2.260	UGG	5-BLD-7	CD	0.000	1.020	UGG
5-PND-2	AG	4.000	0.982	UGG	5-BLD-8	CD	0.000	1.010	UGG
5-PND-4	AG	0.000	1.160	UGG	5-DCH-2	CD	0.500	5.450	UGG
5-PND-4	AG	0.500	2.530	UGG	5-DCH-2	CD	2.000	0.675	UGG
5-BLD-15	AL	2.000	27700.000	UGG	5-PND-1	CD	0.000	4.520	UGG
5-BLD-18	AL	0.000	24300.000	UGG	5-PND-1	CD	0.500	14.200	UGG
5-BLD-19	AL	0.000	21700.000	UGG	5-PND-1	CD	2.000	1.650	UGG
5-DCH-3	AS	2.000	50.000	UGG	5-PND-2	CD	0.000	22.500	UGG
5-PND-1	BA	0.500	511.000	UGG	5-PND-2	CD	0.500	1.560	UGG
5-BLD-14	BE	2.000	1.630	UGG	5-PND-2	CD	2.000	3.680	UGG
5-BLD-15	BE	2.000	1.740	UGG	5-PND-2	CD	4.000	1.380	UGG
5-BLD-18	BE	0.000	1.170	UGG	5-PND-3	CD	0.000	1.070	UGG
5-BLD-19	BE	0.000	1.110	UGG	5-PND-3	CD	0.500	1.030	UGG
5-PND-2	BE	2.000	1.220	UGG	5-PND-4	CD	0.000	2.210	UGG
5-PND-3	BE	0.000	1.400	UGG	5-PND-4	CD	0.500	2.780	UGG
5-PND-4	BE	0.000	1.070	UGG	5-SS-1	CD	0.000	1.800	UGG
5-BLD-6	C25	0.000	0.420	UGG	5-SS-2	CD	0.000	1.720	UGG
5-BLD-1	C27	0.000	0.510	UGG	5-SS-3	CD	0.000	1.180	UGG
5-BLD-12	C27	0.000	1.200	UGG	5-UST-1	CD	9.000	1.010	UGG
5-BLD-2	C27	0.000	0.300	UGG	5-UST-1	CD	14.000	0.719	UGG
5-BLD-6	C27	0.000	1.000	UGG	5-BLD-17	CH2CL2	2.000	0.007	UGG
5-BLD-6	C28	0.000	0.420	UGG	5-UST-1	CH2CL2	9.000	0.010	UGG
5-BLD-1	C29	0.000	2.000	UGG	5-BLD-18	CO	0.000	10.400	UGG
5-BLD-12	C29	0.000	2.300	UGG	5-BLD-19	CO	0.000	10.200	UGG
5-BLD-2	C29	0.000	2.000	UGG	5-BLD-20	CO	0.000	6.670	UGG
5-BLD-3	C29	0.000	1.000	UGG	5-PND-2	CO	0.000	12.200	UGG
5-BLD-3	C29	2.000	0.640	UGG	5-BLD-15	CR	0.000	101.000	UGG
5-BLD-6	C29	2.000	0.430	UGG	5-BLD-15	CR	2.000	50.200	UGG
5-BLD-7	C29	2.000	0.440	UGG	5-BLD-18	CR	0.000	86.300	UGG
5-BLD-13	CA	0.000	160000.000	UGG	5-BLD-19	CR	0.000	38.200	UGG
5-BLD-16	CA	0.000	220000.000	UGG	5-BLD-20	CR	0.000	30.600	UGG
5-BLD-17	CA	0.000	170000.000	UGG	5-BLD-7	CR	0.000	36.600	UGG
5-BLD-3	CA	0.000	170000.000	UGG	5-BLD-8	CR	0.000	28.600	UGG
5-BLD-4	CA	0.000	160000.000	UGG	5-DCH-1	CR	0.000	39.800	UGG
5-BLD-9	CA	0.000	160000.000	UGG	5-DCH-2	CR	0.000	25.700	UGG
5-PND-1	CA	0.000	160000.000	UGG	5-DCH-3	CR	0.500	162.000	UGG
5-BLD-16	CCL3F	2.000	0.015	UGG	5-PND-1	CR	0.000	658.000	UGG

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
5-PND-1	CR	0.500	983.000	UGG	5-PND-1	HG	0.000	0.125	UGG
5-PND-1	CR	2.000	474.000	UGG	5-PND-1	HG	2.000	0.212	UGG
5-PND-1	CR	4.000	93.000	UGG	5-PND-2	HG	0.000	0.291	UGG
5-PND-2	CR	0.000	950.000	UGG	5-SS-1	HG	0.000	0.128	UGG
5-PND-2	CR	0.500	109.000	UGG	5-BLD-1	K	2.000	4870.000	UGG
5-PND-2	CR	2.000	1680.000	UGG	5-BLD-12	K	2.000	5060.000	UGG
5-PND-2	CR	4.000	163.000	UGG	5-BLD-17	K	2.000	7280.000	UGG
5-PND-3	CR	0.000	35.800	UGG	5-BLD-4	K	2.000	5360.000	UGG
5-PND-3	CR	0.500	63.500	UGG	5-BLD-5	K	2.000	5480.000	UGG
5-PND-4	CR	0.000	54.000	UGG	5-BLD-6	K	2.000	6600.000	UGG
5-PND-4	CR	0.500	221.000	UGG	5-PND-2	K	0.500	5620.000	UGG
5-SS-1	CR	0.000	25.900	UGG	5-UST-1	K	9.000	5900.000	UGG
5-BLD-10	CU	0.000	132.000	UGG	5-UST-2	K	4.000	5450.000	UGG
5-BLD-14	CU	0.000	28.100	UGG	5-BLD-1	MEC6H5	0.000	0.008	UGG
5-BLD-18	CU	0.000	25.400	UGG	5-BLD-9	MEC6H5	0.000	0.001	UGG
5-BLD-8	CU	0.000	35.400	UGG	5-BLD-17	MG	2.000	16100.000	UGG
5-DCH-2	CU	0.500	31.200	UGG	5-BLD-2	MG	2.000	18500.000	UGG
5-PND-1	CU	0.000	45.700	UGG	5-BLD-4	MG	0.000	32200.000	UGG
5-PND-1	CU	0.500	87.100	UGG	5-BLD-7	MG	0.000	17200.000	UGG
5-PND-2	CU	0.000	170.000	UGG	5-DCH-3	MG	0.500	15400.000	UGG
5-PND-2	CU	2.000	39.300	UGG	5-DCH-4	MG	0.000	20100.000	UGG
5-PND-4	CU	0.000	25.300	UGG	5-DCH-4	MG	0.500	19500.000	UGG
5-PND-4	CU	0.500	32.500	UGG	5-UST-1	MG	9.000	19200.000	UGG
5-SS-1	CU	0.000	34.800	UGG	5-BLD-10	MN	2.000	542.000	UGG
5-PND-2	CYN	0.000	3.130	UGG	5-BLD-19	MN	0.000	663.000	UGG
5-BLD-12	DBZFUR	0.000	0.110	UGG	5-BLD-20	MN	0.000	744.000	UGG
5-BLD-10	DEP	0.000	0.470	UGG	5-BLD-4	MN	2.000	594.000	UGG
5-BLD-1	DNBP	0.000	0.920	UGG	5-BLD-5	MN	2.000	531.000	UGG
5-BLD-1	DNBP	2.000	0.340	UGG	5-BLD-6	MN	2.000	513.000	UGG
5-BLD-11	DNBP	2.000	0.086	UGG	5-DCH-2	MN	2.000	605.000	UGG
5-BLD-13	DNBP	2.000	0.098	UGG	5-DCH-3	MN	2.000	1160.000	UGG
5-BLD-14	DNBP	2.000	0.085	UGG	5-BLD-13	NA	0.000	1570.000	UGG
5-BLD-16	DNBP	2.000	0.086	UGG	5-BLD-12	NAP	0.000	0.400	UGG
5-BLD-18	DNBP	0.000	0.140	UGG	5-BLD-4	NAP	0.000	0.600	UGG
5-UST-1	DNBP	9.000	0.087	UGG	5-BLD-6	NAP	0.000	0.064	UGG
5-BLD-15	FE	2.000	25800.000	UGG	5-BLD-12	NI	0.000	25.200	UGG
5-BLD-18	FE	0.000	21800.000	UGG	5-BLD-18	NI	0.000	25.800	UGG
5-BLD-19	FE	0.000	20400.000	UGG	5-BLD-19	NI	0.000	22.400	UGG
5-PND-1	FE	0.000	20500.000	UGG	5-PND-1	NI	0.000	29.600	UGG
5-PND-1	FE	0.500	28600.000	UGG	5-PND-1	NI	0.500	41.900	UGG
5-PND-2	FE	0.000	73200.000	UGG	5-PND-1	NI	2.000	101.000	UGG
5-PND-2	FE	2.000	30100.000	UGG	5-PND-1	NI	4.000	42.400	UGG
5-BLD-1	GSITOS	0.000	0.920	UGG	5-PND-2	NI	0.000	73.100	UGG
5-BLD-10	GSITOS	0.000	0.800	UGG	5-PND-2	NI	2.000	172.000	UGG
5-BLD-11	GSITOS	0.000	0.710	UGG	5-PND-2	NI	4.000	76.100	UGG
5-BLD-6	GSITOS	0.000	0.840	UGG	5-PND-3	NI	0.000	46.100	UGG
5-BLD-10	HG	0.000	1.800	UGG	5-PND-3	NI	0.500	41.600	UGG
5-BLD-12	HG	0.000	0.271	UGG	5-PND-4	NI	0.000	72.700	UGG
5-BLD-15	HG	0.000	0.101	UGG	5-PND-4	NI	0.500	64.200	UGG
5-BLD-18	HG	0.000	0.110	UGG	5-BLD-10	OMCTSX	2.000	0.010	UGG

Location	Analyte	Depth (ft)	Value (ug/g)	Units
5-BLD-15	OMCTSX	2.000	0.023	UGG
5-BLD-17	OMCTSX	0.000	0.021	UGG
5-BLD-17	OMCTSX	2.000	0.044	UGG
5-BLD-9	OMCTSX	0.000	0.041	UGG
5-BLD-9	OMCTSX	2.000	0.110	UGG
5-UST-1	OMCTSX	4.000	0.010	UGG
5-BK-2	PB	0.000	160.000	UGG
5-BLD-10	PB	0.000	66.000	UGG
5-BLD-12	PB	0.000	52.000	UGG
5-BLD-13	PB	0.000	65.000	UGG
5-BLD-14	PB	0.000	64.000	UGG
5-BLD-15	PB	0.000	460.000	UGG
5-BLD-15	PB	2.000	19.000	UGG
5-BLD-16	PB	0.000	130.000	UGG
5-BLD-18	PB	0.000	410.000	UGG
5-BLD-19	PB	2.000	24.000	UGG
5-BLD-2	PB	0.000	36.000	UGG
5-BLD-2	PB	2.000	22.000	UGG
5-BLD-4	PB	0.000	110.000	UGG
5-BLD-5	PB	0.000	46.000	UGG
5-BLD-7	PB	0.000	110.000	UGG
5-BLD-8	PB	0.000	120.000	UGG
5-BLD-9	PB	0.000	38.000	UGG
5-DCH-1	PB	2.000	21.000	UGG
5-DCH-2	PB	0.500	46.000	UGG
5-DCH-2	PB	2.000	26.000	UGG
5-DCH-3	PB	0.500	22.000	UGG
5-DCH-3	PB	2.000	22.000	UGG
5-PND-1	PB	0.000	500.000	UGG
5-PND-1	PB	0.500	320.000	UGG
5-PND-1	PB	2.000	490.000	UGG
5-PND-1	PB	4.000	39.000	UGG
5-PND-2	PB	0.000	750.000	UGG
5-PND-2	PB	0.500	59.000	UGG
5-PND-2	PB	2.000	310.000	UGG
5-PND-2	PB	4.000	44.000	UGG
5-PND-3	PB	0.000	51.000	UGG
5-PND-3	PB	0.500	61.000	UGG
5-PND-4	PB	0.000	140.000	UGG
5-PND-4	PB	0.500	150.000	UGG
5-SS-1	PB	0.000	87.000	UGG
5-BLD-18	PCB260	0.000	0.157	UGG
5-BLD-19	PCB260	2.000	0.213	UGG
5-BLD-12	PHANTR	0.000	0.130	UGG
5-BLD-6	PHANTR	0.000	0.043	UGG
5-BLD-15	PHTHAN	0.000	11.000	UGG
5-BLD-18	PHTHAN	0.000	0.400	UGG
5-PND-1	SB	2.000	16.300	UGG
5-PND-2	SB	0.000	25.500	UGG
5-PND-2	SB	2.000	57.600	UGG
5-PND-2	SB	4.000	12.400	UGG
5-PND-1	SE	0.000	0.355	UGG
5-SS-1	SE	0.000	0.324	UGG
5-BLD-1	TCLTFE	2.000	0.006	UGG
5-BLD-2	TCLTFE	0.000	0.007	UGG
5-BLD-2	TCLTFE	2.000	0.010	UGG
5-BLD-3	TCLTFE	0.000	0.006	UGG
5-BLD-3	TCLTFE	2.000	0.006	UGG
5-BLD-4	TCLTFE	0.000	0.008	UGG
5-BLD-4	TCLTFE	2.000	0.008	UGG
5-BLD-5	TCLTFE	2.000	0.007	UGG
5-BLD-6	TCLTFE	0.000	0.005	UGG
5-BLD-7	TCLTFE	0.000	0.007	UGG
5-BLD-7	TCLTFE	2.000	0.008	UGG
5-BLD-12	V	0.000	31.300	UGG
5-BLD-14	V	2.000	103.000	UGG
5-BLD-15	V	2.000	94.000	UGG
5-BLD-18	V	0.000	72.800	UGG
5-BLD-19	V	0.000	66.000	UGG
5-BLD-20	V	0.000	55.300	UGG
5-BLD-10	ZN	0.000	117.000	UGG
5-BLD-14	ZN	0.000	235.000	UGG
5-BLD-15	ZN	0.000	660.000	UGG
5-BLD-16	ZN	0.000	237.000	UGG
5-BLD-18	ZN	0.000	160.000	UGG
5-BLD-7	ZN	0.000	211.000	UGG
5-BLD-8	ZN	0.000	116.000	UGG
5-DCH-1	ZN	0.000	184.000	UGG
5-DCH-2	ZN	0.500	176.000	UGG
5-DCH-3	ZN	0.000	111.000	UGG
5-PND-1	ZN	0.000	754.000	UGG
5-PND-1	ZN	0.500	1370.000	UGG
5-PND-1	ZN	2.000	413.000	UGG
5-PND-2	ZN	0.000	2950.000	UGG
5-PND-2	ZN	0.500	258.000	UGG
5-PND-2	ZN	2.000	772.000	UGG
5-PND-2	ZN	4.000	156.000	UGG
5-PND-3	ZN	0.000	138.000	UGG
5-PND-3	ZN	0.500	477.000	UGG
5-PND-4	ZN	0.000	252.000	UGG
5-PND-4	ZN	0.500	409.000	UGG
5-SS-1	ZN	0.000	615.000	UGG

Table 3-3 Analytes Detected in Soil Samples Collected at SWMU 8

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
8-GS-2	24DNT	0.000	2.310	UGG	8-WTR-1	CU	1.000	332.000	UGG
8-GS-2	AG	0.000	0.450	UGG	8-WTR-2	CU	0.500	557.000	UGG
8-GS-3	AG	0.000	0.763	UGG	8-DCH-3	FE	0.000	17900.000	UGG
8-GS-7	AG	0.000	0.837	UGG	8-GS-6	FE	0.000	20400.000	UGG
8-WTR-1	BA	1.000	1550.000	UGG	8-DCH-1	HG	0.500	0.317	UGG
8-WTR-2	BA	0.500	4300.000	UGG	8-DCH-1	HG	2.000	0.245	UGG
8-GS-4	C16A	0.000	1.200	UGG	8-DCH-2	HG	0.000	0.218	UGG
8-DCH-1	C27	0.500	0.320	UGG	8-DCH-3	HG	0.000	0.306	UGG
8-GS-5	C27	0.000	0.340	UGG	8-DCH-3	HG	2.000	0.315	UGG
8-DCH-1	C29	0.500	0.540	UGG	8-GS-3	HG	0.000	0.133	UGG
8-GS-2	C29	0.000	1.000	UGG	8-GS-3	HG	0.500	0.591	UGG
8-GS-2	C29	0.500	0.430	UGG	8-GS-2	HMX	0.000	2.520	UGG
8-NTR-1	C29	0.000	0.530	UGG	8-GS-1	K	0.500	5580.000	UGG
8-NTR-2	C29	4.000	0.460	UGG	8-GS-3	K	0.500	5250.000	UGG
8-GS-6	C6H6	0.000	0.005	UGG	8-NTR-2	K	4.000	6400.000	UGG
8-DCH-1	CCL3F	0.500	0.006	UGG	8-WTR-1	MEC6H5	1.000	0.002	UGG
8-DCH-1	CCL3F	2.000	0.007	UGG	8-GS-1	MG	0.000	19000.000	UGG
8-DCH-3	CCL3F	2.000	0.007	UGG	8-GS-1	MG	0.500	17400.000	UGG
8-GS-1	CCL3F	0.000	0.006	UGG	8-GS-1	MG	2.000	17000.000	UGG
8-GS-7	CCL3F	0.000	0.007	UGG	8-GS-2	MG	0.000	16700.000	UGG
8-GS-7	CCL3F	2.000	0.008	UGG	8-GS-2	MG	0.500	16700.000	UGG
8-DCH-2	CD	0.000	2.060	UGG	8-GS-3	MG	0.500	15900.000	UGG
8-DCH-3	CD	0.000	1.650	UGG	8-GS-5	MG	2.000	18900.000	UGG
8-GS-1	CD	0.000	1.635	UGG	8-GS-6	MG	0.000	19100.000	UGG
8-GS-2	CD	0.000	6.430	UGG	8-GS-6	MG	0.500	16500.000	UGG
8-GS-3	CD	0.000	6.140	UGG	8-GS-6	MG	2.000	17300.000	UGG
8-GS-3	CD	0.500	1.470	UGG	8-GS-7	MG	0.000	17800.000	UGG
8-GS-3	CD	2.000	0.625	UGG	8-WTR-1	MG	1.000	28800.000	UGG
8-GS-4	CD	0.000	2.070	UGG	8-WTR-1	MG	7.000	17200.000	UGG
8-GS-5	CD	0.000	1.230	UGG	8-WTR-1	MG	9.000	17300.000	UGG
8-GS-6	CD	0.000	1.070	UGG	8-WTR-2	MG	0.500	58000.000	UGG
8-GS-6	CD	0.500	0.654	UGG	8-WTR-2	MG	6.000	17700.000	UGG
8-GS-6	CD	2.000	0.694	UGG	8-WTR-2	MG	9.000	19400.000	UGG
8-GS-7	CD	0.000	4.850	UGG	8-DCH-1	MN	0.500	578.000	UGG
8-DCH-3	CO	0.000	7.890	UGG	8-DCH-1	MN	2.000	572.000	UGG
8-NTR-1	CO	0.000	7.010	UGG	8-DCH-3	MN	2.000	481.000	UGG
8-GS-2	CR	0.000	59.200	UGG	8-GS-5	MN	2.000	523.000	UGG
8-GS-3	CR	0.000	43.500	UGG	8-NTR-2	MN	4.000	577.000	UGG
8-GS-7	CR	0.000	38.400	UGG	8-WTR-1	MN	1.000	496.000	UGG
8-WTR-2	CR	0.500	75.800	UGG	8-NTR-2	NA	0.000	2880.000	UGG
8-DCH-2	CU	0.000	79.500	UGG	8-NTR-2	NA	4.000	5730.000	UGG
8-DCH-3	CU	0.000	67.800	UGG	8-DCH-2	NI	0.000	21.500	UGG
8-GS-1	CU	0.000	49.450	UGG	8-DCH-3	NI	0.000	26.600	UGG
8-GS-2	CU	0.000	260.000	UGG	8-GS-2	NI	0.000	42.000	UGG
8-GS-3	CU	0.000	241.000	UGG	8-GS-3	NI	0.000	22.600	UGG
8-GS-3	CU	0.500	43.200	UGG	8-GS-6	NI	0.000	21.600	UGG
8-GS-4	CU	0.000	77.500	UGG	8-WTR-2	NI	0.500	57.900	UGG
8-GS-5	CU	0.000	56.800	UGG	8-GS-5	OMCTSX	0.500	0.043	UGG
8-GS-6	CU	0.000	44.300	UGG	8-WTR-1	OMCTSX	1.000	0.059	UGG
8-GS-7	CU	0.000	231.000	UGG	8-DCH-2	PB	0.000	40.000	UGG

Table 3-3 Analytes Detected in Soil Samples Collected at SWMU 8

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
8-GS-2	PB	0.000	73.000	UGG	8-GS-5	TL	2.000	34.300	UGG
8-GS-3	PB	0.000	150.000	UGG	8-WTR-2	TL	6.000	35.200	UGG
8-GS-3	PB	0.500	40.000	UGG	8-NTR-2	V	0.000	27.800	UGG
8-GS-7	PB	0.000	240.000	UGG	8-DCH-2	ZN	0.000	147.000	UGG
8-WTR-1	PB	1.000	33.000	UGG	8-DCH-3	ZN	0.000	430.000	UGG
8-WTR-2	PB	0.500	53.000	UGG	8-GS-1	ZN	0.000	157.000	UGG
8-WTR-1	PETN	1.000	2.620	UGG	8-GS-2	ZN	0.000	2040.000	UGG
8-WTR-1	PETN	3.000	2.600	UGG	8-GS-2	ZN	0.500	146.000	UGG
8-WTR-1	PETN	7.000	2.600	UGG	8-GS-3	ZN	0.000	2820.000	UGG
8-WTR-1	PETN	9.000	2.600	UGG	8-GS-3	ZN	0.500	843.000	UGG
8-WTR-2	PETN	0.500	2.640	UGG	8-GS-4	ZN	0.000	282.000	UGG
8-WTR-2	PETN	3.000	2.600	UGG	8-GS-5	ZN	0.000	108.000	UGG
8-WTR-2	PETN	6.000	2.610	UGG	8-GS-6	ZN	0.000	110.000	UGG
8-WTR-2	PETN	9.000	2.630	UGG	8-GS-7	ZN	0.000	364.000	UGG
8-GS-3	PHANTR	0.000	0.082	UGG	8-WTR-2	ZN	0.500	325.000	UGG
8-GS-3	SB	0.000	25.500	UGG					

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
9-A2-7	17PTCE	2.000	2.100	UGG	9-OA2-1	**CA**	0.000	190000.000	UGG
9-A2-1	ACET	0.000	0.021	UGG	9-A2-1	**CCL3F**	0.500	0.007	UGG
9-A2-12	ACET	2.000	0.020	UGG	9-A2-1	**CCL3F**	2.000	0.008	UGG
9-BA-5	ACET	4.000	0.022	UGG	9-A2-12	**CCL3F**	0.500	0.006	UGG
9-BA-5	AG	4.000	8.050	UGG	9-A2-12	**CCL3F**	4.000	0.006	UGG
9-BA-5	AG	4.000	7.940	UGG	9-A2-13	**CCL3F**	4.000	0.006	UGG
9-BA-1	AL	0.000	50400.000	UGG	9-A2-3	**CCL3F**	2.000	0.006	UGG
9-A2-11	AS	0.500	97.000	UGG	9-BA-1	**CCL3F**	2.000	0.007	UGG
9-A2-12	AS	4.000	85.000	UGG	9-BA-4	**CCL3F**	2.000	0.007	UGG
9-A2-10	B2EHP	0.000	0.980	UGG	9-OA2-10	**CCL3F**	4.000	0.007	UGG
9-OA2-12	B2EHP	2.000	5.600	UGG	9-OA2-11	**CCL3F**	0.000	0.008	UGG
9-OA2-6	B2EHP	4.000	1.700	UGG	9-OA2-11	**CCL3F**	2.000	0.008	UGG
9-OA2-12	BA	2.000	467.000	UGG	9-OA2-4	**CCL3F**	0.000	0.010	UGG
9-A2-3	BE	4.000	1.260	UGG	9-TP-2A	**CCL3F**	2.000	0.007	UGG
9-BA-5	BE	4.000	54.400	UGG	9-TP-4	**CCL3F**	2.000	0.011	UGG
9-BA-5	BE	4.000	54.200	UGG	9-A2-14	**CD**	0.000	3.390	UGG
9-OA2-10	BE	0.000	1.670	UGG	9-A2-3	**CD**	4.000	0.669	UGG
9-OA2-10	BE	0.500	1.350	UGG	9-A2-6	**CD**	0.500	0.696	UGG
9-OA2-10	BE	2.000	1.280	UGG	9-A2-7	**CD**	2.000	0.648	UGG
9-OA2-10	BE	4.000	1.340	UGG	9-BA-5	**CD**	4.000	57.300	UGG
9-OA2-11	BE	0.000	1.390	UGG	9-BA-5	**CD**	4.000	56.500	UGG
9-OA2-7	BE	0.000	1.220	UGG	9-OA2-3	**CD**	4.000	0.712	UGG
9-OA2-7	BE	0.500	1.330	UGG	9-OA2-4	**CD**	4.000	0.602	UGG
9-OA2-7	BE	2.000	1.380	UGG	9-OA2-5	**CD**	4.000	0.631	UGG
9-OA2-7	BE	4.000	1.330	UGG	9-OA2-6	**CD**	2.000	0.714	UGG
9-OA2-8	BE	0.000	1.100	UGG	9-OA2-6	**CD**	4.000	0.774	UGG
9-OA2-8	BE	0.500	1.430	UGG	9-OA2-7	**CD**	0.000	1.360	UGG
9-OA2-8	BE	2.000	1.330	UGG	9-OA2-8	**CD**	0.000	1.690	UGG
9-OA2-9	BE	0.000	1.460	UGG	9-A2-11	**CL6BZ**	0.000	1.100	UGG
9-OA2-9	BE	0.500	1.545	UGG	9-A2-13	**CL6BZ**	0.000	0.580	UGG
9-OA2-9	BE	2.000	1.320	UGG	9-A2-3	**CO**	4.000	8.870	UGG
9-OA2-9	BE	4.000	1.500	UGG	9-BA-5	**CO**	4.000	110.000	UGG
9-SB-4	C16A	0.000	0.510	UGG	9-BA-5	**CO**	4.000	109.000	UGG
9-TP-1	C16A	0.000	0.330	UGG	9-SB-3	**CO**	0.000	6.770	UGG
9-OA2-10	C27	0.500	0.630	UGG	9-TP-2A	**CO**	0.000	6.820	UGG
9-OA2-9	C27	0.500	0.330	UGG	9-BA-1	**CR**	0.000	29.200	UGG
9-SB-4	C27	0.000	0.770	UGG	9-BA-5	**CR**	4.000	113.000	UGG
9-A2-3	C29	0.000	0.670	UGG	9-BA-5	**CR**	4.000	116.000	UGG
9-A2-6	C29	0.500	0.430	UGG	9-BA-1	**CU**	0.000	966.000	UGG
9-A2-9	C29	0.000	0.330	UGG	9-BA-1	**CU**	2.000	56.800	UGG
9-BA-1	C29	0.000	0.740	UGG	9-BA-5	**CU**	4.000	55.800	UGG
9-BA-4	C29	0.000	0.480	UGG	9-BA-5	**CU**	4.000	55.500	UGG
9-OA2-1	C29	0.500	0.440	UGG	9-SB-4	**CU**	0.000	26.400	UGG
9-OA2-10	C29	0.500	0.950	UGG	9-TP-4	**CU**	0.000	39.600	UGG
9-OA2-2	C29	0.000	0.980	UGG	9-A2-11	**DNBP**	0.000	0.120	UGG
9-TP-4	C29	0.000	1.200	UGG	9-A2-11	**DNBP**	2.000	0.340	UGG
9-A2-1	CA	0.000	200000.000	UGG	9-A2-13	**DNBP**	0.000	0.097	UGG
9-A2-10	CA	0.000	160000.000	UGG	9-A2-3	**DNBP**	2.000	0.110	UGG
9-A2-7	CA	0.000	190000.000	UGG	9-A2-5	**DNBP**	0.000	0.340	UGG
9-A2-9	CA	0.000	180000.000	UGG	9-A2-9	**DNBP**	0.000	0.110	UGG

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
9-OA2-2	DNBP	0.000	0.082	UGG	9-A2-10	MEC6H5	2.000	0.004	UGG
9-OA2-4	DNBP	0.000	0.220	UGG	9-A2-11	MEC6H5	4.000	0.004	UGG
9-OA2-4	DNBP	0.500	0.110	UGG	9-BA-1	MEC6H5	2.000	0.001	UGG
9-OA2-6	DNBP	0.000	0.100	UGG	9-OA2-10	MEC6H5	0.500	0.001	UGG
9-OA2-6	DNBP	4.000	0.089	UGG	9-OA2-12	MEC6H5	0.000	1.100	UGG
9-OA2-7	DNBP	0.000	0.110	UGG	9-OA2-4	MEC6H5	2.000	0.002	UGG
9-OA2-7	DNBP	0.500	0.110	UGG	9-OA2-5	MEC6H5	0.000	0.002	UGG
9-OA2-7	DNBP	4.000	0.120	UGG	9-OA2-7	MEC6H5	0.000	0.005	UGG
9-OA2-8	DNBP	0.000	0.099	UGG	9-OA2-7	MEC6H5	0.500	0.001	UGG
9-OA2-8	DNBP	0.500	0.087	UGG	9-OA2-8	MEC6H5	0.000	0.005	UGG
9-OA2-8	DNBP	4.000	0.200	UGG	9-OA2-8	MEC6H5	0.500	0.001	UGG
9-OA2-9	DNBP	0.000	0.096	UGG	9-OA2-9	MEC6H5	0.500	0.002	UGG
9-SB-4	DNBP	0.000	10.000	UGG	9-A2-9	MG	0.000	19200.000	UGG
9-SB-4	DOAD	0.000	5.100	UGG	9-BA-3	MG	2.000	17400.000	UGG
9-A2-13	ETOH	0.000	0.012	UGG	9-BA-4	MG	2.000	19400.000	UGG
9-A2-14	ETOH	0.000	0.012	UGG	9-BA-5	MG	9.000	24400.000	UGG
9-OA2-10	ETOH	0.000	0.007	UGG	9-OA2-1	MG	0.500	20000.000	UGG
9-A2-6	HG	0.000	0.147	UGG	9-OA2-1	MG	2.000	18200.000	UGG
9-A2-6	HG	0.500	0.361	UGG	9-OA2-1	MG	4.000	18000.000	UGG
9-SB-1	HG	0.000	0.109	UGG	9-OA2-10	MG	4.000	16100.000	UGG
9-TP-4	IMPA	0.000	15.500	UGG	9-OA2-11	MG	0.500	19100.000	UGG
9-A2-1	K	0.500	6550.000	UGG	9-OA2-11	MG	2.000	19300.000	UGG
9-A2-1	K	2.000	5350.000	UGG	9-OA2-12	MG	0.500	16000.000	UGG
9-A2-10	K	0.500	5430.000	UGG	9-OA2-12	MG	2.000	19600.000	UGG
9-A2-11	K	4.000	5610.000	UGG	9-OA2-12	MG	4.000	17300.000	UGG
9-A2-12	K	0.500	5930.000	UGG	9-OA2-2	MG	4.000	16300.000	UGG
9-A2-13	K	0.500	6480.000	UGG	9-OA2-4	MG	0.500	18200.000	UGG
9-A2-13	K	2.000	5440.000	UGG	9-OA2-4	MG	2.000	15800.000	UGG
9-A2-14	K	0.500	6340.000	UGG	9-OA2-4	MG	4.000	16000.000	UGG
9-A2-2	K	0.500	5520.000	UGG	9-OA2-6	MG	2.000	16100.000	UGG
9-A2-2	K	4.000	5050.000	UGG	9-OA2-7	MG	0.000	16200.000	UGG
9-A2-3	K	0.500	6490.000	UGG	9-OA2-7	MG	0.500	19300.000	UGG
9-A2-3	K	4.000	5210.000	UGG	9-OA2-7	MG	2.000	16900.000	UGG
9-A2-4	K	0.500	4980.000	UGG	9-OA2-7	MG	4.000	20200.000	UGG
9-A2-5	K	0.500	5670.000	UGG	9-OA2-8	MG	0.500	17600.000	UGG
9-A2-6	K	0.500	4960.000	UGG	9-OA2-8	MG	2.000	15600.000	UGG
9-A2-6	K	2.000	5520.000	UGG	9-OA2-8	MG	4.000	15800.000	UGG
9-A2-7	K	2.000	5270.000	UGG	9-OA2-9	MG	0.500	15850.000	UGG
9-A2-8	K	0.500	5100.000	UGG	9-OA2-9	MG	2.000	16400.000	UGG
9-BA-5	K	4.000	5590.000	UGG	9-OA2-9	MG	4.000	15800.000	UGG
9-BA-5	K	4.000	5810.000	UGG	9-TP-2A	MG	2.000	18200.000	UGG
9-OA2-1	K	0.500	5420.000	UGG	9-A2-1	MN	0.500	510.000	UGG
9-OA2-10	K	0.500	5440.000	UGG	9-A2-14	MN	0.500	499.000	UGG
9-OA2-11	K	0.500	5410.000	UGG	9-A2-2	MN	0.500	581.000	UGG
9-OA2-12	K	0.500	5450.000	UGG	9-A2-2	MN	4.000	512.000	UGG
9-OA2-4	K	0.500	8650.000	UGG	9-A2-3	MN	4.000	491.000	UGG
9-OA2-8	K	0.500	5540.000	UGG	9-A2-4	MN	0.500	506.000	UGG
9-OA2-9	K	0.500	5735.000	UGG	9-A2-5	MN	0.500	585.000	UGG
9-OA2-9	K	4.000	5030.000	UGG	9-A2-6	MN	2.000	497.000	UGG
9-SB-4	K	2.000	4950.000	UGG	9-A2-8	MN	0.500	557.000	UGG

Location	Analyte	Depth (ft)	Value (ug/g)	Units
9-BA-2	MN	0.000	673.000	UGG
9-OA2-1	MN	0.500	504.000	UGG
9-OA2-10	MN	0.500	483.000	UGG
9-OA2-11	MN	0.500	478.000	UGG
9-OA2-2	MN	0.000	663.000	UGG
9-OA2-4	MN	0.500	641.000	UGG
9-OA2-6	MN	2.000	615.000	UGG
9-OA2-6	MN	4.000	485.000	UGG
9-OA2-7	MN	4.000	511.000	UGG
9-OA2-9	MN	2.000	679.000	UGG
9-OA2-9	MN	4.000	641.000	UGG
9-SB-4	MN	2.000	487.000	UGG
9-TP-1	MN	0.000	670.000	UGG
9-TP-2A	MN	0.000	686.000	UGG
9-A2-10	MPA	0.000	0.923	UGG
9-OA2-7	MPA	0.000	3.610	UGG
9-BA-1	NA	0.000	1610.000	UGG
9-BA-5	NA	4.000	5800.000	UGG
9-BA-5	NA	4.000	5890.000	UGG
9-TP-3	NA	0.000	1990.000	UGG
9-BA-1	NI	0.000	25.700	UGG
9-BA-5	NI	4.000	56.600	UGG
9-BA-5	NI	4.000	56.500	UGG
9-A2-1	OMCTSX	0.500	0.043	UGG
9-A2-1	OMCTSX	2.000	0.008	UGG
9-BA-1	OMCTSX	2.000	0.032	UGG
9-BA-3	OMCTSX	2.000	0.054	UGG
9-TP-4	OMCTSX	2.000	0.031	UGG
9-A2-10	PB	0.000	57.000	UGG
9-A2-12	PB	0.000	210.000	UGG
9-A2-2	PB	0.000	97.000	UGG
9-A2-7	PB	0.000	53.000	UGG
9-A2-8	PB	0.000	140.000	UGG
9-OA2-10	PB	0.000	73.000	UGG
9-OA2-10	PB	0.500	20.000	UGG
9-OA2-3	PB	4.000	24.000	UGG
9-OA2-4	PB	0.000	36.000	UGG
9-OA2-6	PB	2.000	20.000	UGG
9-OA2-6	PB	4.000	32.000	UGG
9-OA2-7	PB	4.000	22.000	UGG
9-OA2-8	PB	0.000	58.000	UGG
9-OA2-8	PB	4.000	20.000	UGG
9-A2-5	PCB248	0.000	0.149	UGG
9-A2-7	PCB248	0.000	0.245	UGG
9-A2-8	PCB248	0.000	0.510	UGG
9-A2-11	PCB254	0.000	0.670	UGG
9-A2-13	SB	0.000	13.100	UGG
9-BA-5	SB	4.000	42.200	UGG
9-BA-5	SB	4.000	42.600	UGG
9-OA2-10	SB	4.000	12.100	UGG
9-OA2-11	**SB**	0.000	8.850	UGG
9-OA2-9	**SB**	0.000	9.990	UGG
9-A2-1	**SE**	2.000	0.262	UGG
9-A2-11	**SE**	2.000	0.247	UGG
9-A2-1	**TCLTFE**	0.000	0.007	UGG
9-A2-2	**TCLTFE**	0.000	0.010	UGG
9-A2-2	**TCLTFE**	0.500	0.011	UGG
9-A2-2	**TCLTFE**	2.000	0.011	UGG
9-A2-2	**TCLTFE**	4.000	0.011	UGG
9-OA2-8	**TCOS**	0.000	0.430	UGG
9-BA-5	**TL**	4.000	116.000	UGG
9-BA-5	**TL**	4.000	115.000	UGG
9-BA-1	**ZN**	0.000	366.000	UGG
9-OA2-8	**ZN**	0.000	109.000	UGG

Table 3-5 Analytes Detected in Soil Samples Collected at SWMU 30

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
30-TP2	13DNB	2.000	0.309	UGG	30-TP1	CU	2.000	224.000	UGG
30-TP1	2MNAP	5.000	0.100	UGG	30-TP1	CU	5.000	356.000	UGG
30-TP1	2TMPD	2.000	0.710	UGG	30-TP2	CU	2.000	36.600	UGG
30-TP1	2TMPD	5.000	0.590	UGG	30-TP2	CU	4.000	73.800	UGG
30-TP2	2TMPD	4.000	0.790	UGG	30-TP2	DH2MN	2.000	20.000	UGG
30-OSA-1	AG	2.000	0.496	UGG	30-OSA-1	DNBP	0.000	0.095	UGG
30-OSA-3	AG	0.000	1.270	UGG	30-OSA-1	DNBP	2.000	0.690	UGG
30-TP1	AS	2.000	130.000	UGG	30-OSA-2	DNBP	0.000	0.110	UGG
30-TP1	AS	5.000	540.000	UGG	30-OSA-2	DNBP	2.000	0.180	UGG
30-OSA-2	BE	0.000	0.943	UGG	30-OSA-3	DNBP	2.000	0.130	UGG
30-TP2	C12	2.000	50.000	UGG	30-TP2	DNBP	0.500	0.350	UGG
30-TP1	C13	5.000	0.440	UGG	30-TP2	DNBP	2.000	0.500	UGG
30-TP2	C13	2.000	60.000	UGG	30-TP3	DNBP	0.500	0.350	UGG
30-TP2	C13	4.000	0.400	UGG	30-TP3	DNBP	2.000	0.340	UGG
30-TP1	C14	5.000	0.440	UGG	30-TP3	DNBP	4.000	0.500	UGG
30-TP2	C14	2.000	100.000	UGG	30-OSA-1	DOAD	0.000	0.670	UGG
30-TP2	C14	4.000	0.400	UGG	30-OSA-1	DOAD	2.000	0.500	UGG
30-TP1	C16	2.000	0.350	UGG	30-OSA-2	DOAD	0.000	0.450	UGG
30-TP1	C16	5.000	0.880	UGG	30-OSA-3	DOAD	0.000	0.380	UGG
30-TP2	C16	4.000	0.660	UGG	30-TP1	FE	2.000	36000.000	UGG
30-TP1	C17	2.000	0.470	UGG	30-TP2	FE	4.000	40000.000	UGG
30-TP1	C17	5.000	1.300	UGG	30-OSA-1	K	2.000	8050.000	UGG
30-TP2	C17	4.000	0.660	UGG	30-OSA-2	K	2.000	7590.000	UGG
30-TP1	C18	2.000	0.350	UGG	30-OSA-3	K	2.000	7000.000	UGG
30-TP1	C18	5.000	0.740	UGG	30-SS-2	K	0.000	8860.000	UGG
30-SS-6	C25	0.000	0.440	UGG	30-TP1	K	0.500	6820.000	UGG
30-OSA-1	C27	0.000	0.330	UGG	30-TP1	K	2.000	4930.000	UGG
30-OSA-3	C27	0.000	1.300	UGG	30-TP1	K	5.000	6550.000	UGG
30-SS-6	C27	0.000	1.000	UGG	30-TP2	K	0.500	8630.000	UGG
30-OSA-1	CCL3F	0.000	0.007	UGG	30-TP2	K	2.000	8470.000	UGG
30-OSA-2	CCL3F	0.000	0.009	UGG	30-TP2	K	4.000	5980.000	UGG
30-OSA-1	CD	0.000	1.110	UGG	30-TP3	K	0.500	8550.000	UGG
30-OSA-1	CD	2.000	1.290	UGG	30-TP3	K	2.000	7830.000	UGG
30-OSA-2	CD	0.000	1.300	UGG	30-TP3	K	4.000	8790.000	UGG
30-OSA-2	CD	2.000	1.460	UGG	30-SS-6	MEC6H5	0.000	0.001	UGG
30-OSA-3	CD	2.000	1.160	UGG	30-TP2	MEC6H5	4.000	0.002	UGG
30-TP1	CD	2.000	10.100	UGG	30-OSA-1	MG	0.000	16900.000	UGG
30-TP2	CD	0.500	1.040	UGG	30-OSA-1	MG	2.000	23800.000	UGG
30-TP2	CD	2.000	1.910	UGG	30-OSA-2	MG	0.000	21000.000	UGG
30-TP2	CD	4.000	7.840	UGG	30-OSA-2	MG	2.000	18000.000	UGG
30-TP3	CD	0.500	1.320	UGG	30-OSA-3	MG	0.000	37700.000	UGG
30-TP3	CD	2.000	1.110	UGG	30-OSA-3	MG	2.000	22000.000	UGG
30-TP3	CD	4.000	1.310	UGG	30-SS-1	MG	0.000	21600.000	UGG
30-OSA-1	CH2CL2	0.000	0.008	UGG	30-SS-2	MG	0.000	28100.000	UGG
30-OSA-2	CH2CL2	0.000	0.008	UGG	30-SS-3	MG	0.000	23700.000	UGG
30-OSA-3	CH2CL2	0.000	0.015	UGG	30-SS-4	MG	0.000	22800.000	UGG
30-TP1	CHOLA	2.000	1.200	UGG	30-SS-5	MG	0.000	18400.000	UGG
30-TP1	CO	2.000	11.000	UGG	30-SS-6	MG	0.000	39100.000	UGG
30-TP1	CR	2.000	104.000	UGG	30-TP1	MG	0.500	20600.000	UGG
30-SS-3	CU	0.000	29.700	UGG	30-TP1	MG	2.000	19000.000	UGG

Location	Analyte	Depth (ft)	Value (ug/g)	Units
30-TP1	MG	5.000	22800.000	UGG
30-TP2	MG	0.500	23000.000	UGG
30-TP2	MG	2.000	25400.000	UGG
30-TP2	MG	4.000	30500.000	UGG
30-TP3	MG	0.500	22000.000	UGG
30-TP3	MG	2.000	28500.000	UGG
30-TP3	MG	4.000	23000.000	UGG
30-OSA-1	MN	2.000	495.000	UGG
30-OSA-3	MN	2.000	532.000	UGG
30-TP1	MN	2.000	537.000	UGG
30-TP1	MN	5.000	638.000	UGG
30-TP2	MN	2.000	516.000	UGG
30-TP2	MN	4.000	607.000	UGG
30-TP3	MN	0.500	476.000	UGG
30-TP3	MN	2.000	541.000	UGG
30-TP3	MN	4.000	536.000	UGG
30-OSA-2	NA	0.000	2650.000	UGG
30-OSA-3	NA	0.000	5140.000	UGG
30-SS-1	NA	0.000	2040.000	UGG
30-SS-2	NA	0.000	20400.000	UGG
30-SS-4	NA	0.000	19100.000	UGG
30-SS-5	NA	0.000	10700.000	UGG
30-SS-6	NA	0.000	2690.000	UGG
30-TP1	NAP	5.000	0.070	UGG
30-OSA-2	NI	0.000	21.800	UGG
30-SS-2	NI	0.000	21.000	UGG
30-TP1	NI	2.000	41.500	UGG
30-TP1	NI	5.000	28.700	UGG
30-TP2	NI	2.000	29.200	UGG
30-OSA-1	PB	0.000	57.000	UGG
30-OSA-1	PB	2.000	32.000	UGG
30-OSA-2	PB	0.000	38.000	UGG
30-OSA-2	PB	2.000	34.000	UGG
30-OSA-3	PB	2.000	27.000	UGG
30-TP1	PB	0.500	25.000	UGG
30-TP1	PB	2.000	850.000	UGG
30-TP1	PB	5.000	200.000	UGG
30-TP2	PB	0.500	29.000	UGG
30-TP2	PB	2.000	34.000	UGG
30-TP2	PB	4.000	32.000	UGG
30-TP3	PB	0.500	31.000	UGG
30-TP3	PB	2.000	35.000	UGG
30-TP3	PB	4.000	34.000	UGG
30-SS-1	PETN	0.000	2.660	UGG
30-SS-2	PETN	0.000	2.740	UGG
30-SS-3	PETN	0.000	2.590	UGG
30-SS-4	PETN	0.000	2.670	UGG
30-SS-5	PETN	0.000	2.630	UGG
30-SS-6	PETN	0.000	2.710	UGG
30-TP2	PETN	0.500	2.700	UGG
30-TP2	PETN	2.000	2.670	UGG
30-TP2	PETN	4.000	2.700	UGG
30-TP3	PETN	0.500	2.640	UGG
30-TP3	PETN	2.000	2.640	UGG
30-TP3	PETN	4.000	2.670	UGG
30-TP1	PHANTR	2.000	0.046	UGG
30-TP1	PYR	2.000	0.061	UGG
30-OSA-3	SB	0.000	10.700	UGG
30-OSA-3	SE	0.000	0.517	UGG
30-SS-1	TCLTFE	0.000	0.008	UGG
30-SS-2	TCLTFE	0.000	0.008	UGG
30-SS-3	TCLTFE	0.000	0.005	UGG
30-SS-4	TCLTFE	0.000	0.007	UGG
30-SS-5	TCLTFE	0.000	0.008	UGG
30-TP1	TCLTFE	0.500	0.012	UGG
30-TP1	TCLTFE	2.000	0.011	UGG
30-TP2	TCLTFE	0.500	0.008	UGG
30-TP2	TCLTFE	2.000	0.008	UGG
30-TP3	TCLTFE	0.500	0.007	UGG
30-TP3	TCLTFE	2.000	0.008	UGG
30-TP1	TL	0.500	39.500	UGG
30-TP1	TL	2.000	37.300	UGG
30-TP1	TL	5.000	47.700	UGG
30-OSA-2	V	0.000	29.400	UGG
30-SS-1	V	0.000	29.600	UGG
30-OSA-2	ZN	0.000	110.000	UGG
30-SS-2	ZN	0.000	106.000	UGG
30-TP1	ZN	2.000	667.000	UGG
30-TP1	ZN	5.000	566.000	UGG
30-TP2	ZN	2.000	234.000	UGG
30-TP2	ZN	4.000	669.000	UGG

Table 3-6 Analytes Detected in Soil Samples Collected at SWMU 31

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
31-CS-1	246TNT	0.000	0.520	UGG	31-DCH-2	CU	0.000	76.150	UGG
31-CS-4	246TNT	0.000	0.958	UGG	31-CW-1	CYN	0.000	20.900	UGL
31-CW-1	24DNT	0.000	0.042	UGL	31-CW-2	CYN	0.000	14.100	UGL
31-CW-2	24DNT	0.000	0.071	UGL	31-CW-3	CYN	0.000	13.100	UGL
31-CW-3	24DNT	0.000	1.010	UGL	31-CW-4	CYN	0.000	3.290	UGL
31-CW-4	24DNT	0.000	0.112	UGL	31-DCH-1	DNBP	2.000	0.340	UGG
31-CW-1	AL	0.000	245.000	UGL	31-DCH-1	DOAD	2.000	0.570	UGG
31-CW-2	AL	0.000	186.000	UGL	31-DCH-2	DOAD	2.000	1.200	UGG
31-CW-3	AL	0.000	259.000	UGL	31-CS-3	FE	0.500	18300.000	UGG
31-CW-4	AL	0.000	426.000	UGL	31-CW-1	FE	0.000	176.000	UGL
31-CW-1	AS	0.000	13.900	UGL	31-CW-2	FE	0.000	177.000	UGL
31-CW-2	AS	0.000	13.300	UGL	31-CW-3	FE	0.000	208.000	UGL
31-CW-3	AS	0.000	16.200	UGL	31-CW-4	FE	0.000	422.000	UGL
31-CW-4	AS	0.000	32.900	UGL	31-DCH-1	HG	0.000	0.195	UGG
31-CW-1	BA	0.000	65.600	UGL	31-CW-1	HMX	0.000	30.600	UGL
31-CW-2	BA	0.000	111.000	UGL	31-CW-2	HMX	0.000	46.400	UGL
31-CW-3	BA	0.000	37.000	UGL	31-CW-3	HMX	0.000	64.900	UGL
31-CW-4	BA	0.000	49.200	UGL	31-CW-4	HMX	0.000	38.800	UGL
31-CS-2	BE	0.000	0.984	UGG	31-CW-1	K	0.000	26700.000	UGL
31-CS-3	BE	0.500	1.110	UGG	31-CW-2	K	0.000	21500.000	UGL
31-DCH-2	BE	0.000	1.150	UGG	31-CW-3	K	0.000	13800.000	UGL
31-CW-1	CA	0.000	375000.000	UGL	31-CW-4	K	0.000	9480.000	UGL
31-CW-2	CA	0.000	191000.000	UGL	31-CS-1	MG	0.000	17200.000	UGG
31-CW-3	CA	0.000	92500.000	UGL	31-CS-1	MG	0.500	16500.000	UGG
31-CW-4	CA	0.000	23500.000	UGL	31-CS-2	MG	0.000	24900.000	UGG
31-BK-1	CD	0.000	1.780	UGG	31-CS-2	MG	0.500	34700.000	UGG
31-CS-1	CD	0.000	1.260	UGG	31-CS-2	MG	2.000	29800.000	UGG
31-CS-1	CD	0.500	1.040	UGG	31-CS-3	MG	0.000	22500.000	UGG
31-CS-2	CD	0.000	1.130	UGG	31-CS-3	MG	0.500	46400.000	UGG
31-CS-2	CD	0.500	1.110	UGG	31-CS-3	MG	2.000	28700.000	UGG
31-CS-2	CD	2.000	0.617	UGG	31-CS-4	MG	0.000	27300.000	UGG
31-CS-3	CD	0.000	1.290	UGG	31-CS-4	MG	0.500	25500.000	UGG
31-CS-3	CD	2.000	0.802	UGG	31-CS-4	MG	2.000	18200.000	UGG
31-CS-4	CD	0.000	1.080	UGG	31-CW-1	MG	0.000	301000.000	UGL
31-CS-4	CD	0.500	1.280	UGG	31-CW-2	MG	0.000	182000.000	UGL
31-CS-4	CD	2.000	1.010	UGG	31-CW-3	MG	0.000	120000.000	UGL
31-DCH-1	CD	0.000	1.560	UGG	31-CW-4	MG	0.000	39000.000	UGL
31-DCH-2	CD	0.000	2.365	UGG	31-CS-4	MN	2.000	678.000	UGG
31-DCH-2	CD	2.000	0.639	UGG	31-CW-1	MN	0.000	5.750	UGL
31-DCH-1	CH2CL2	0.000	0.007	UGG	31-CW-2	MN	0.000	8.960	UGL
31-DCH-1	CO	0.000	6.650	UGG	31-CW-3	MN	0.000	39.800	UGL
31-CW-3	CR	0.000	3.640	UGL	31-CW-4	MN	0.000	17.700	UGL
31-BK-1	CU	0.000	72.100	UGG	31-DCH-2	MN	2.000	492.000	UGG
31-CS-2	CU	0.000	30.900	UGG	31-CS-1	NA	0.000	2440.000	UGG
31-CS-3	CU	0.000	38.800	UGG	31-CS-2	NA	0.000	2210.000	UGG
31-CW-1	CU	0.000	18.700	UGL	31-CS-3	NA	0.000	1890.000	UGG
31-CW-2	CU	0.000	34.900	UGL	31-CS-3	NA	0.500	1740.000	UGG
31-CW-3	CU	0.000	88.300	UGL	31-CS-4	NA	0.000	2430.000	UGG
31-CW-4	CU	0.000	75.900	UGL	31-CW-1	NA	0.000	2800000.000	UGL
31-DCH-1	CU	0.000	56.800	UGG	31-CW-2	NA	0.000	2400000.000	UGL

Location	Analyte	Depth (ft)	Value (ug/g)	Units	Location	Analyte	Depth (ft)	Value (ug/g)	Units
31-CW-3	NA	0.000	1700000.000	UGL	31-CW-2	**RDX**	0.000	9.730	UGL
31-CW-4	NA	0.000	620000.000	UGL	31-CW-3	**RDX**	0.000	7.490	UGL
31-CW-3	NB	0.000	1.740	UGL	31-CW-4	**RDX**	0.000	8.180	UGL
31-CS-1	NI	0.000	20.300	UGG	31-CS-1	**SB**	0.000	12.400	UGG
31-CS-2	NI	0.000	21.500	UGG	31-CW-1	**SB**	0.000	27.700	UGL
31-CS-2	NI	0.500	29.400	UGG	31-CW-2	**SB**	0.000	30.500	UGL
31-CS-3	NI	0.000	21.400	UGG	31-CW-3	**SB**	0.000	29.600	UGL
31-CS-3	NI	0.500	32.200	UGG	31-CW-1	**SE**	0.000	43.200	UGL
31-CS-3	NI	2.000	28.300	UGG	31-CS-2	**V**	0.000	27.800	UGG
31-CS-4	NI	0.000	26.500	UGG	31-CW-1	**V**	0.000	28.900	UGL
31-DCH-1	NI	0.000	20.700	UGG	31-CW-2	**V**	0.000	29.000	UGL
31-DCH-2	NI	0.000	19.950	UGG	31-CW-3	**V**	0.000	25.600	UGL
31-CW-3	PB	0.000	1.740	UGL	31-CW-4	**V**	0.000	28.000	UGL
31-CW-4	PB	0.000	4.230	UGL	31-CW-2	**ZN**	0.000	12.400	UGL
31-CW-1	RDX	0.000	25.200	UGL	31-DCH-2	**ZN**	0.000	166.000	UGG

Attachment 4

Comparison of Metal Concentrations to Background

ATTACHMENT 4

Comparison of Metal Concentrations to Background

This attachment presents the results of the comparison of the SWMU-specific metals concentrations to background concentrations. If the comparison resulted in the selection of the analyte as a COC, the discussion is presented in bold face.

SWMU 3

Al The maximum detected concentration was less than the background value.

As SWMU detections were less than Mercur Creek sediment background concentrations.

Be The maximum concentration detected in SWMU samples (1.22 µg/g) was comparable to the maximum concentration detected at the background sample location at this unit (1.21 µg/g).

Mn SWMU concentrations exceeded the maximum background value in only 3 of 24 samples: at 737 µg/g, or 12 percent above background, in one sample and at two other locations where the detected values were only 2 percent above the maximum background value. The higher concentrations were detected in isolated samples in three separate areas of the SWMU, so no hot spot contamination is indicated. Therefore, manganese is interpreted to occur at background levels.

Sb Antimony was detected in two samples. Since this metal was detected in only one background sample, comparison to background is inconclusive. Therefore, antimony was selected as a COC.

Tl Of the 28 samples collected, only 1 exceeded (54.9 µg/g) the background value (49.9 µg/g); this concentration exceeds background by only 10 percent. Therefore, thallium is interpreted to occur at background concentrations that are not related to waste management activities. Thallium risk was removed from the risk calculation.

SWMU 5

Al Only one SWMU sample (27,700 µg/g) was slightly higher than background (25,200 µg/g).

As Out of 74 samples, only the maximum SWMU concentration of 50 µg/g exceeded the background level of 40 µg/g. Therefore, arsenic is believed to occur at background, and the analyte was removed from the SWMU risk calculations.

Be **In 3 out of 74 samples, beryllium exceeded background. This metal was retained as a COC, although no contaminant source of beryllium is known at this SWMU.**

Mn Only 3 percent of the SWMU sample concentrations were greater than background; these concentrations were only slightly greater than background in all but one subsurface sample, 5-DCH-3, where manganese was detected at an elevated concentration.

Sb **Several SWMU sample concentrations exceeded background, most notably those collected from the pond.**

Tl The maximum detected concentration was less than the background value.

SWMU 8

Al The maximum detected concentration was less than the background value.

As The maximum detected concentration was less than the background value.

Be The maximum detected concentration was less than the background value.

Mn The maximum detected concentration was less than the background value.

Sb Antimony was detected in only one sample (a detection frequency of only 2.5 percent).

Tl The maximum detected concentration was less than the background value.

SWMU 9

Al Only one detection (0.8 percent of the samples) exceeded the background value.

As Only 2 out of 131 sample concentrations exceeded the background value; these detections occurred at sample locations in the eastern part of the SWMU, nearer to the Mercur Creek sediments in which higher background levels are found.

Be **Beryllium concentrations exceeded background in 15 percent of the samples, although there is no source of beryllium known at this SWMU.**

Mn Manganese concentrations exceeded the background level in only 5 percent of the SWMU samples, and the maximum concentration (686 µg/g) was only 4 percent higher than the background value (658 µg/g).

Sb **Antimony was detected in only 6 of 131 samples (detection frequency of 4.6 percent). However, although one isolated detection occurred in the far eastern part of Area 2, the other detections occurred in samples from**

locations clustered in the western part of the SWMU, in Old Area 2 and in the possible burn pit to the south.

Tl The maximum detected concentration was less than the background value.

SWMU 30

Al The maximum detected concentration was less than the background value.

As Two SWMU sample concentrations from the eastern disposal trench exceeded background. These concentrations were interpreted to indicate hot spot contamination.

Be The maximum detected concentration was less than the background value.

Mn The maximum detected concentration was less than the background value.

Sb The maximum detected concentration was less than the background value.

Tl The maximum detected concentration was less than the background value.

SWMU 31

Al The maximum detected concentration was less than the background value.

As The maximum detected concentration was less than the background value.

Be The maximum detected concentration was less than the background value.

Mn Only one detection of manganese in SWMU samples (678 µg/g) exceeded the background value (658 µg/g) by only 3 percent.

Sb Antimony was detected in only two samples. The maximum detected concentration (12.4 µg/g) is comparable to the concentration detected at a background sample for this SWMU (11.9 µg/g).

Tl The maximum detected concentration is less than the background value.

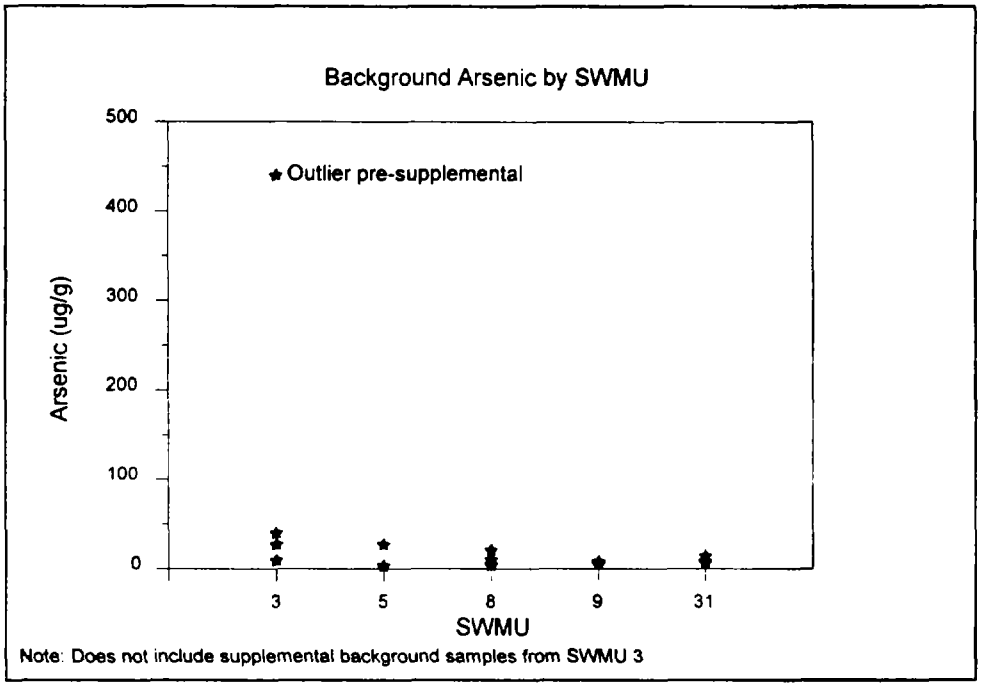
Attachment 5

Graphical Presentation of

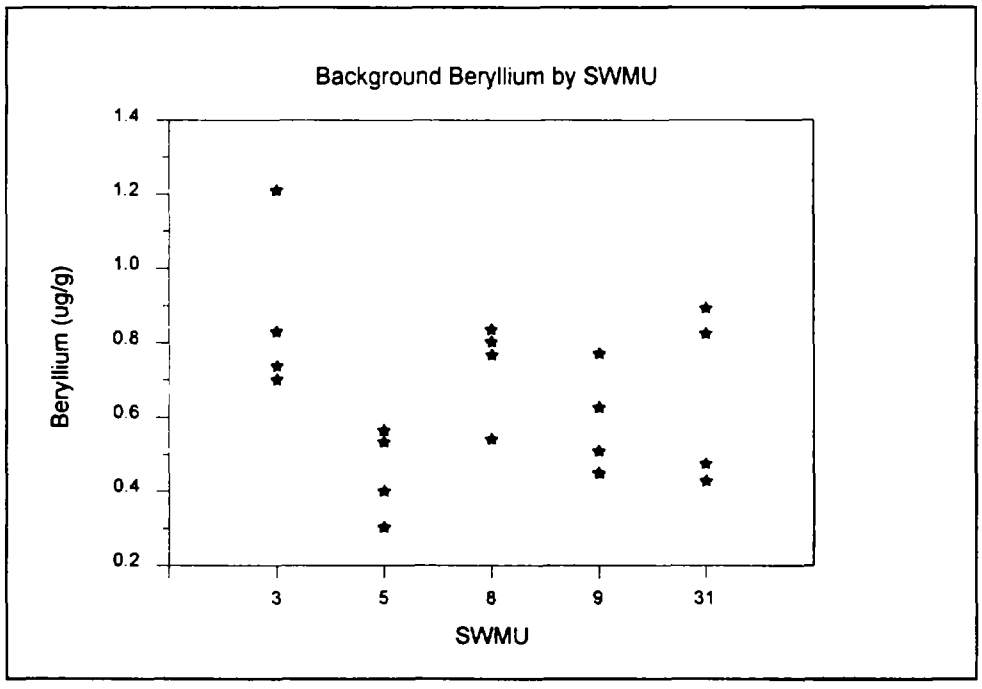
Metals Concentrations in Background Samples

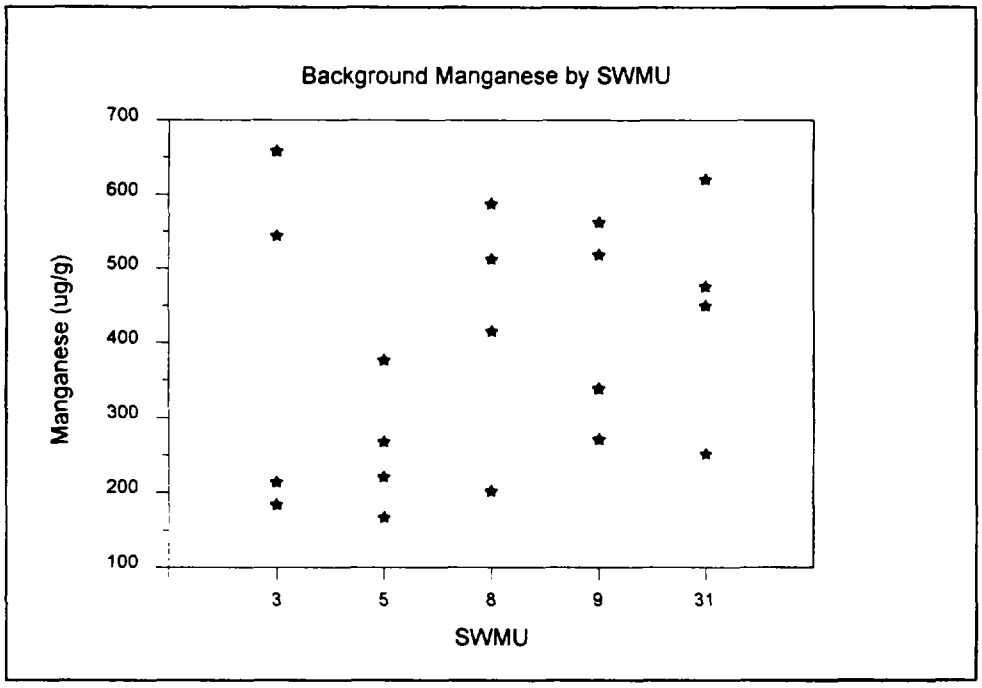
ATTACHMENT 5

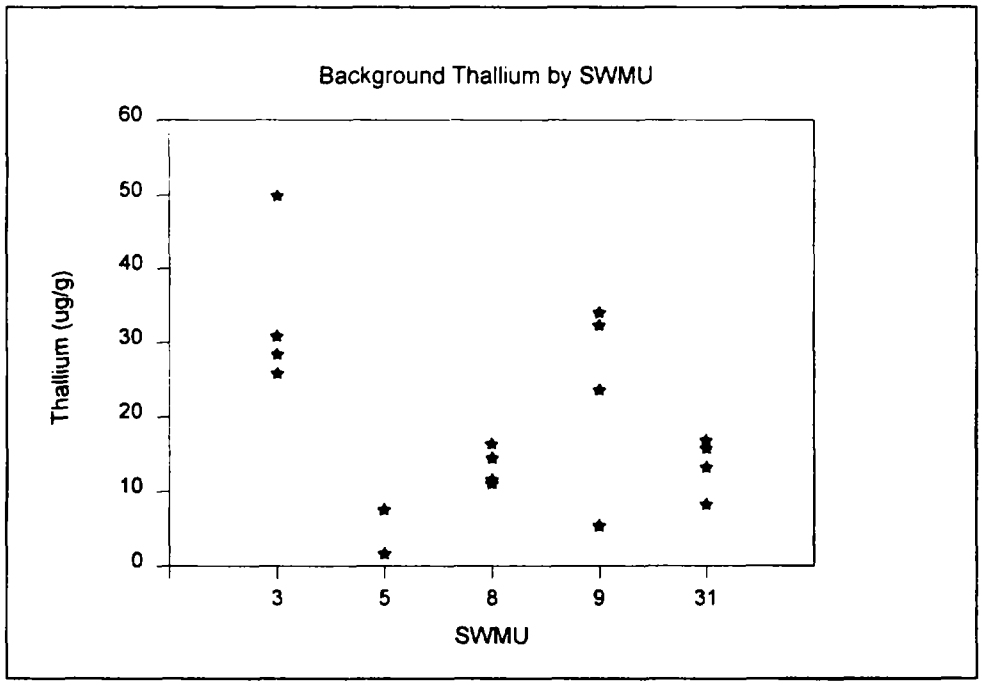
Scatter Plots of Background Metals by SWMU
Deseret Chemical Depot

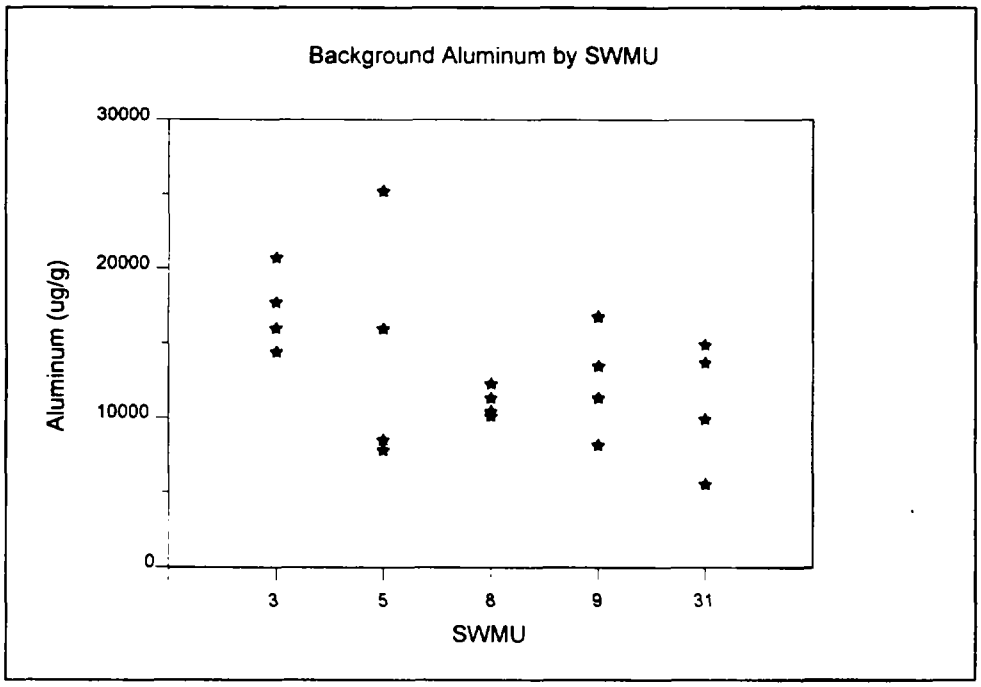


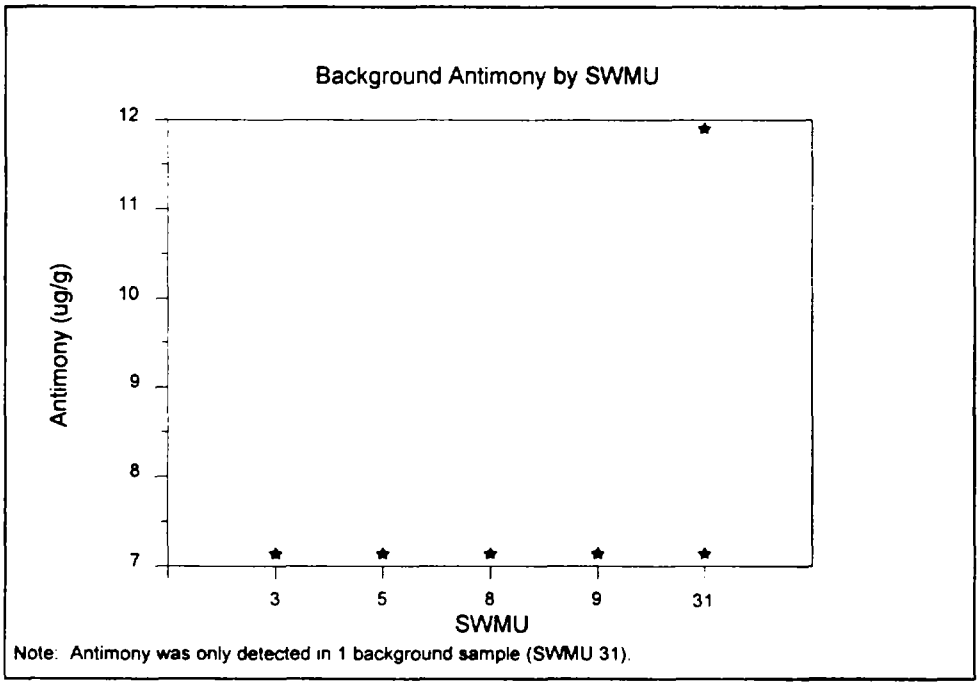
Note: Does not include supplemental background samples from SWMU 3




Background Manganese by SWMU
Manganese (ug/g)
700
600
500
400
300
200
100
3
5
8
9
31
SWMU


Background Thallium by SWMU
Thallium (ug/g)
60
50
40
30
20
10
0
3
5
8
9
31
SWMU





Note: Antimony was only detected in 1 background sample (SWMU 31).

Table 5-1 Background Sample Data for Deseret Chemical Depot Group 2 SWMUs

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
3-BK-1	0.000	AG	LT	0.589	69
3-BK-1	0.000	AL		14400	69
3-BK-1	0.000	AS		440	69
3-BK-1	0.000	BA		537	69
3-BK-1	0.000	BE		0.83	69
3-BK-1	0.000	CA		56900	69
3-BK-1	0.000	CD		0.509	69
3-BK-1	0.000	CO		6.61	69
3-BK-1	0.000	CR		17.9	69
3-BK-1	0.000	CU		22.4	69
3-BK-1	0.000	FE		17500	69
3-BK-1	0.000	HG		2.7	69
3-BK-1	0.000	K		6560	69
3-BK-1	0.000	MG		12900	69
3-BK-1	0.000	MN		544	69
3-BK-1	0.000	NA		1170	69
3-BK-1	0.000	NI		19.4	69
3-BK-1	0.000	PB		34	69
3-BK-1	0.000	SB	LT	7.14	69
3-BK-1	0.000	SE	LT	0.202	69
3-BK-1	0.000	TL		49.9	69
3-BK-1	0.000	V		23.1	69
3-BK-1	0.000	ZN		100	69
3-BK-1	2.000	AG	LT	0.589	69
3-BK-1	2.000	AL		20700	69
3-BK-1	2.000	AS		40	69
3-BK-1	2.000	BA		348	69
3-BK-1	2.000	BE		1.21	69
3-BK-1	2.000	CA		32200	69
3-BK-1	2.000	CD	LT	0.7	69
3-BK-1	2.000	CO		8.59	69
3-BK-1	2.000	CR		31	69
3-BK-1	2.000	CU		14.4	69
3-BK-1	2.000	FE		24300	69
3-BK-1	2.000	HG		0.079	69
3-BK-1	2.000	K		3380	69
3-BK-1	2.000	MG		9760	69
3-BK-1	2.000	MN		184	69
3-BK-1	2.000	NA		5610	69
3-BK-1	2.000	NI		27.9	69
3-BK-1	2.000	PB		15	69
3-BK-1	2.000	SB	LT	7.14	69
3-BK-1	2.000	SE	LT	0.202	69
3-BK-1	2.000	TL		25.8	69
3-BK-1	2.000	V		62.6	69
3-BK-1	2.000	ZN		86.2	69
3-BK-2	0.000	AG	LT	0.589	69
3-BK-2	0.000	AL		17700	69
3-BK-2	0.000	AS		27	69
3-BK-2	0.000	BA		243	69
3-BK-2	0.000	BE		0.737	69
3-BK-2	0.000	CA		62300	69
3-BK-2	0.000	CD		0.761	69
3-BK-2	0.000	CO		6.26	69
3-BK-2	0.000	CR		19.6	69
3-BK-2	0.000	CU		23.9	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
3-BK-2	0.000	FE		16100	69
3-BK-2	0.000	HG		0.084	69
3-BK-2	0.000	K		7940	69
3-BK-2	0.000	MG		15100	69
3-BK-2	0.000	MN		658	69
3-BK-2	0.000	NA		1210	69
3-BK-2	0.000	NI		15	69
3-BK-2	0.000	PB		35	69
3-BK-2	0.000	SB	LT	7.14	69
3-BK-2	0.000	SE	LT	0.202	69
3-BK-2	0.000	TL		30.9	69
3-BK-2	0.000	V		27.6	69
3-BK-2	0.000	ZN		83.5	69
3-BK-2	2.000	AG	LT	0.589	69
3-BK-2	2.000	AL		16000	69
3-BK-2	2.000	AS		9.28	69
3-BK-2	2.000	BA		220	69
3-BK-2	2.000	BE		0.701	69
3-BK-2	2.000	CA		89000	69
3-BK-2	2.000	CD	LT	0.7	69
3-BK-2	2.000	CO		6.74	69
3-BK-2	2.000	CR		18.8	69
3-BK-2	2.000	CU		12.8	69
3-BK-2	2.000	FE		12800	69
3-BK-2	2.000	HG		0.043	69
3-BK-2	2.000	K		4780	69
3-BK-2	2.000	MG		12100	69
3-BK-2	2.000	MN		214	69
3-BK-2	2.000	NA		3880	69
3-BK-2	2.000	NI		13.5	69
3-BK-2	2.000	PB		8.81	69
3-BK-2	2.000	SB	LT	7.14	69
3-BK-2	2.000	SE	LT	0.202	69
3-BK-2	2.000	TL		28.4	69
3-BK-2	2.000	V		31.7	69
3-BK-2	2.000	ZN		43.5	69
3-BK-3	0.000	AS		2780	Mercur Creek seds.
3-BK-3	0.000	HG		22.1	Mercur Creek seds.
3-BK-4	0.000	AS		868	Mercur Creek seds.
3-BK-4	0.000	HG		2.49	Mercur Creek seds.
3-BK-5	0.000	AS		4820	Mercur Creek seds.
3-BK-5	0.000	HG		7.55	Mercur Creek seds.
3-BK-5D	0.000	AS		4760	Mercur Creek seds.
3-BK-5D	0.000	HG		6.66	Mercur Creek seds.
3-BK-6	0.000	AS		3690	Mercur Creek seds.
3-BK-6	0.000	HG		6.11	Mercur Creek seds.
3-BK-7	0.000	AS		32	Mercur Creek seds.
3-BK-7	0.000	HG		0.157	Mercur Creek seds.
3-BK-8	0.000	AS		23.2	Mercur Creek seds.
31-BK-1	0.000	AG		0.435	69
31-BK-1	0.000	AL		13700	69
31-BK-1	0.000	AS		6.74	69
31-BK-1	0.000	BA		206	69
31-BK-1	0.000	BE		0.893	69
31-BK-1	0.000	CA		92000	69
31-BK-1	0.000	CD		1.78	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
31-BK-1	0.000	CO		5.81	69
31-BK-1	0.000	CR		17.4	69
31-BK-1	0.000	CU		72.1	69
31-BK-1	0.000	FE		14600	69
31-BK-1	0.000	HG		0.032	69
31-BK-1	0.000	K		7260	69
31-BK-1	0.000	MG		15400	69
31-BK-1	0.000	MN		620	69
31-BK-1	0.000	NA		1170	69
31-BK-1	0.000	NI		16.9	69
31-BK-1	0.000	PB		29	69
31-BK-1	0.000	SB	LT	7.14	69
31-BK-1	0.000	SE	LT	0.202	69
31-BK-1	0.000	TL		16.8	69
31-BK-1	0.000	V		23	69
31-BK-1	0.000	ZN		104	69
31-BK-1	2.000	AG	LT	0.589	69
31-BK-1	2.000	AL		14900	69
31-BK-1	2.000	AS		8.76	69
31-BK-1	2.000	BA		209	69
31-BK-1	2.000	BE		0.824	69
31-BK-1	2.000	CA		100000	69
31-BK-1	2.000	CD		0.411	69
31-BK-1	2.000	CO		5.98	69
31-BK-1	2.000	CR		16.6	69
31-BK-1	2.000	CU		15.2	69
31-BK-1	2.000	FE		15800	69
31-BK-1	2.000	HG	LT	0.05	69
31-BK-1	2.000	K		4260	69
31-BK-1	2.000	MG		13200	69
31-BK-1	2.000	MN		475	69
31-BK-1	2.000	NA		2390	69
31-BK-1	2.000	NI		19.5	69
31-BK-1	2.000	PB		8.98	69
31-BK-1	2.000	SB	LT	7.14	69
31-BK-1	2.000	SE		0.208	69
31-BK-1	2.000	TL		8.25	69
31-BK-1	2.000	V		30.2	69
31-BK-1	2.000	ZN		60.5	69
31-BK-2	0.000	AG	LT	0.589	69
31-BK-2	0.000	AL		9910	69
31-BK-2	0.000	AS		6.08	69
31-BK-2	0.000	BA		146	69
31-BK-2	0.000	BE		0.475	69
31-BK-2	0.000	CA		150000	69
31-BK-2	0.000	CD		0.491	69
31-BK-2	0.000	CO		4.43	69
31-BK-2	0.000	CR		12.7	69
31-BK-2	0.000	CU		22.8	69
31-BK-2	0.000	FE		10700	69
31-BK-2	0.000	HG	LT	0.05	69
31-BK-2	0.000	K		5230	69
31-BK-2	0.000	MG		10100	69
31-BK-2	0.000	MN		450	69
31-BK-2	0.000	NA		752	69
31-BK-2	0.000	NI		12.7	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
31-BK-2	0.000	PB		9.44	69
31-BK-2	0.000	SB	LT	7.14	69
31-BK-2	0.000	SE	LT	0.202	69
31-BK-2	0.000	TL		15.7	69
31-BK-2	0.000	V		19.8	69
31-BK-2	0.000	ZN		50.7	69
31-BK-2	2.000	AG	LT	0.589	69
31-BK-2	2.000	AL		5530	69
31-BK-2	2.000	AS		14	69
31-BK-2	2.000	BA		130	69
31-BK-2	2.000	BE		0.428	69
31-BK-2	2.000	CA		250000	69
31-BK-2	2.000	CD	LT	0.7	69
31-BK-2	2.000	CO		2.12	69
31-BK-2	2.000	CR		8.12	69
31-BK-2	2.000	CU		7.24	69
31-BK-2	2.000	FE		6140	69
31-BK-2	2.000	HG		0.031	69
31-BK-2	2.000	K		2370	69
31-BK-2	2.000	MG		9580	69
31-BK-2	2.000	MN		252	69
31-BK-2	2.000	NA		773	69
31-BK-2	2.000	NI		10.1	69
31-BK-2	2.000	PB		5.45	69
31-BK-2	2.000	SB		11.9	69
31-BK-2	2.000	SE	LT	0.202	69
31-BK-2	2.000	TL		13.2	69
31-BK-2	2.000	V		16.2	69
31-BK-2	2.000	ZN		48.8	69
5-BK-1	0.000	AG	LT	0.589	69
5-BK-1	0.000	AL		8490	69
5-BK-1	0.000	AS		3.3	69
5-BK-1	0.000	BA		61.5	69
5-BK-1	0.000	BE		0.303	69
5-BK-1	0.000	CA		140000	69
5-BK-1	0.000	CD		0.798	69
5-BK-1	0.000	CO		3.78	69
5-BK-1	0.000	CR		15.5	69
5-BK-1	0.000	CU		9.19	69
5-BK-1	0.000	FE		11900	69
5-BK-1	0.000	HG		0.043	69
5-BK-1	0.000	K		2270	69
5-BK-1	0.000	MG		10600	69
5-BK-1	0.000	MN		268	69
5-BK-1	0.000	NA		429	69
5-BK-1	0.000	NI		15.4	69
5-BK-1	0.000	PB		15	69
5-BK-1	0.000	SB	LT	7.14	69
5-BK-1	0.000	SE	LT	0.202	69
5-BK-1	0.000	TL	LT	6.62	69
5-BK-1	0.000	V		22.5	69
5-BK-1	0.000	ZN		54.8	69
5-BK-1	2.000	AG	LT	0.589	69
5-BK-1	2.000	AL		16000	69
5-BK-1	2.000	AS		27	69
5-BK-1	2.000	BA		423	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
5-BK-1	2.000	BE		0.4	69
5-BK-1	2.000	CA		220000	69
5-BK-1	2.000	CD	LT	0.7	69
5-BK-1	2.000	CO		5.67	69
5-BK-1	2.000	CR		21.2	69
5-BK-1	2.000	CU		8.5	69
5-BK-1	2.000	FE		11300	69
5-BK-1	2.000	HG		0.143	69
5-BK-1	2.000	K		3280	69
5-BK-1	2.000	MG		11800	69
5-BK-1	2.000	MN		377	69
5-BK-1	2.000	NA		4190	69
5-BK-1	2.000	NI		15.9	69
5-BK-1	2.000	PB		8.28	69
5-BK-1	2.000	SB	LT	7.14	69
5-BK-1	2.000	SE	LT	0.202	69
5-BK-1	2.000	TL		7.55	69
5-BK-1	2.000	V		50.3	69
5-BK-1	2.000	ZN		36.1	69
5-BK-2	0.000	AG	LT	0.589	69
5-BK-2	0.000	AL		7800	69
5-BK-2	0.000	AS		3.31	69
5-BK-2	0.000	BA		98.1	69
5-BK-2	0.000	BE		0.535	69
5-BK-2	0.000	CA		80000	69
5-BK-2	0.000	CD		0.804	69
5-BK-2	0.000	CO		3.06	69
5-BK-2	0.000	CR		25.1	69
5-BK-2	0.000	CU		10.5	69
5-BK-2	0.000	FE		8640	69
5-BK-2	0.000	HG		0.072	69
5-BK-2	0.000	K		2300	69
5-BK-2	0.000	MG		10700	69
5-BK-2	0.000	MN		221	69
5-BK-2	0.000	NA		981	69
5-BK-2	0.000	NI		11.8	69
5-BK-2	0.000	PB		160	69
5-BK-2	0.000	SB	LT	7.14	69
5-BK-2	0.000	SE	LT	0.202	69
5-BK-2	0.000	TL	LT	6.62	69
5-BK-2	0.000	V		20.9	69
5-BK-2	0.000	ZN		83.1	69
5-BK-2	2.000	AG	LT	0.589	69
5-BK-2	2.000	AL		25200	69
5-BK-2	2.000	AS		2.98	69
5-BK-2	2.000	BA		165	69
5-BK-2	2.000	BE		0.566	69
5-BK-2	2.000	CA		49800	69
5-BK-2	2.000	CD	LT	0.7	69
5-BK-2	2.000	CO		7.39	69
5-BK-2	2.000	CR		48.5	69
5-BK-2	2.000	CU		13.3	69
5-BK-2	2.000	FE		19700	69
5-BK-2	2.000	HG		0.031	69
5-BK-2	2.000	K		4500	69
5-BK-2	2.000	MG		12400	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
5-BK-2	2.000	MN		167	69
5-BK-2	2.000	NA		3490	69
5-BK-2	2.000	NI		23.2	69
5-BK-2	2.000	PB		18	69
5-BK-2	2.000	SB	LT	7.14	69
5-BK-2	2.000	SE	LT	0.202	69
5-BK-2	2.000	TL	LT	6.62	69
5-BK-2	2.000	V		54.8	69
5-BK-2	2.000	ZN		81.6	69
8-BK-1	0.000	AG	LT	0.589	69
8-BK-1	0.000	AL		12300	69
8-BK-1	0.000	AS		3.64	69
8-BK-1	0.000	BA		179	69
8-BK-1	0.000	BE		0.766	69
8-BK-1	0.000	CA		87000	69
8-BK-1	0.000	CD		0.885	69
8-BK-1	0.000	CO		5.12	69
8-BK-1	0.000	CR		14.7	69
8-BK-1	0.000	CU		23.1	69
8-BK-1	0.000	FE		12500	69
8-BK-1	0.000	HG	LT	0.05	69
8-BK-1	0.000	K		5900	69
8-BK-1	0.000	MG		16300	69
8-BK-1	0.000	MN		513	69
8-BK-1	0.000	NA		1480	69
8-BK-1	0.000	NI		13.4	69
8-BK-1	0.000	PB		22	69
8-BK-1	0.000	SB	LT	7.14	69
8-BK-1	0.000	SE	LT	0.202	69
8-BK-1	0.000	TL		14	69
8-BK-1	0.000	V		21.2	69
8-BK-1	0.000	ZN		66.9	69
8-BK-1	2.000	AG	LT	0.589	69
8-BK-1	2.000	AL		10100	69
8-BK-1	2.000	AS		21	69
8-BK-1	2.000	BA		184	69
8-BK-1	2.000	BE		0.802	69
8-BK-1	2.000	CA		96000	69
8-BK-1	2.000	CD		0.534	69
8-BK-1	2.000	CO		4.58	69
8-BK-1	2.000	CR		13.6	69
8-BK-1	2.000	CU		8.01	69
8-BK-1	2.000	FE		10800	69
8-BK-1	2.000	HG		0.033	69
8-BK-1	2.000	K		2370	69
8-BK-1	2.000	MG		13200	69
8-BK-1	2.000	MN		202	69
8-BK-1	2.000	NA		2730	69
8-BK-1	2.000	NI		11.9	69
8-BK-1	2.000	PB		6.93	69
8-BK-1	2.000	SB	LT	7.14	69
8-BK-1	2.000	SE	LT	0.202	69
8-BK-1	2.000	TL		16.3	69
8-BK-1	2.000	V		54.3	69
8-BK-1	2.000	ZN		40.1	69
8-BK-2	0.000	AG	LT	0.589	69

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
8-BK-2	0.000	AL		11300	69
8-BK-2	0.000	AS		4.75	69
8-BK-2	0.000	BA		181	69
8-BK-2	0.000	BE		0.542	69
8-BK-2	0.000	CA		99000	69
8-BK-2	0.000	CD		0.982	69
8-BK-2	0.000	CO		5.4	69
8-BK-2	0.000	CR		14.8	69
8-BK-2	0.000	CU		25.2	69
8-BK-2	0.000	FE		13700	69
8-BK-2	0.000	HG	LT	0.05	69
8-BK-2	0.000	K		6080	69
8-BK-2	0.000	MG		13400	69
8-BK-2	0.000	MN		588	69
8-BK-2	0.000	NA		1550	69
8-BK-2	0.000	NI		17.8	69
8-BK-2	0.000	PB		18	69
8-BK-2	0.000	SB	LT	7.14	69
8-BK-2	0.000	SE	LT	0.202	69
8-BK-2	0.000	TL		11.6	69
8-BK-2	0.000	V		20.6	69
8-BK-2	0.000	ZN		74.6	69
8-BK-2	2.000	AG	LT	0.589	69
8-BK-2	2.000	AL		10400	69
8-BK-2	2.000	AS		9.92	69
8-BK-2	2.000	BA		167	69
8-BK-2	2.000	BE		0.835	69
8-BK-2	2.000	CA		92000	69
8-BK-2	2.000	CD	LT	0.7	69
8-BK-2	2.000	CO		6.34	69
8-BK-2	2.000	CR		13.2	69
8-BK-2	2.000	CU		13.3	69
8-BK-2	2.000	FE		13200	69
8-BK-2	2.000	HG	LT	0.05	69
8-BK-2	2.000	K		2810	69
8-BK-2	2.000	MG		8930	69
8-BK-2	2.000	MN		415	69
8-BK-2	2.000	NA		5160	69
8-BK-2	2.000	NI		17.8	69
8-BK-2	2.000	PB		8.97	69
8-BK-2	2.000	SB	LT	7.14	69
8-BK-2	2.000	SE	LT	0.202	69
8-BK-2	2.000	TL		11.1	69
8-BK-2	2.000	V		23.1	69
8-BK-2	2.000	ZN		53.1	69
9-BK-1	0.000	AG	LT	0.589	64
9-BK-1	0.000	AL		11300	64
9-BK-1	0.000	AS		7.59	64
9-BK-1	0.000	BA		188	64
9-BK-1	0.000	BE		0.449	64
9-BK-1	0.000	CA		140000	64
9-BK-1	0.000	CD		0.897	64
9-BK-1	0.000	CO		5.46	64
9-BK-1	0.000	CR		14.2	64
9-BK-1	0.000	CU		13.7	64
9-BK-1	0.000	FE		11800	64

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
9-BK-1	0.000	HG		0.036	64
9-BK-1	0.000	K		4140	64
9-BK-1	0.000	MG		8970	64
9-BK-1	0.000	MN		563	64
9-BK-1	0.000	NA		595	64
9-BK-1	0.000	NI		13.1	64
9-BK-1	0.000	PB		23	64
9-BK-1	0.000	SB	LT	7.14	64
9-BK-1	0.000	SE	LT	0.202	64
9-BK-1	0.000	TL		5.43	64
9-BK-1	0.000	V		22.3	64
9-BK-1	0.000	ZN		52.5	64
9-BK-1	2.000	AG	LT	0.589	64
9-BK-1	2.000	AL		16800	64
9-BK-1	2.000	AS		7.24	64
9-BK-1	2.000	BA		208	64
9-BK-1	2.000	BE		0.769	64
9-BK-1	2.000	CA		110000	64
9-BK-1	2.000	CD	LT	0.7	64
9-BK-1	2.000	CO		6.65	64
9-BK-1	2.000	CR		18.8	64
9-BK-1	2.000	CU		15.9	64
9-BK-1	2.000	FE		15200	64
9-BK-1	2.000	HG		0.088	64
9-BK-1	2.000	K		4850	64
9-BK-1	2.000	MG		14800	64
9-BK-1	2.000	MN		339	64
9-BK-1	2.000	NA		796	64
9-BK-1	2.000	NI		15.7	64
9-BK-1	2.000	PB		7.3	64
9-BK-1	2.000	SB	LT	7.14	64
9-BK-1	2.000	SE	LT	0.202	64
9-BK-1	2.000	TL		32.3	64
9-BK-1	2.000	V		25.7	64
9-BK-1	2.000	ZN		58.6	64
9-BK-2	0.000	AG	LT	0.589	64
9-BK-2	0.000	AL		13500	64
9-BK-2	0.000	AS		5.07	64
9-BK-2	0.000	BA		182	64
9-BK-2	0.000	BE		0.626	64
9-BK-2	0.000	CA		66000	64
9-BK-2	0.000	CD		0.522	64
9-BK-2	0.000	CO		5.49	64
9-BK-2	0.000	CR		15.7	64
9-BK-2	0.000	CU		17.9	64
9-BK-2	0.000	FE		13200	64
9-BK-2	0.000	HG		0.032	64
9-BK-2	0.000	K		4850	64
9-BK-2	0.000	MG		10400	64
9-BK-2	0.000	MN		519	64
9-BK-2	0.000	NA		617	64
9-BK-2	0.000	NI		13	64
9-BK-2	0.000	PB		24	64
9-BK-2	0.000	SB	LT	7.14	64
9-BK-2	0.000	SE	LT	0.202	64
9-BK-2	0.000	TL		23.6	64

Site ID	Sample Depth (feet)	Analyte	Boolean	Concentration (µg/g)	Soil Type
9-BK-2	0.000	V		22.8	64
9-BK-2	0.000	ZN		63.7	64
9-BK-2	2.000	AG	LT	0.589	64
9-BK-2	2.000	AL		8150	64
9-BK-2	2.000	AS		6.35	64
9-BK-2	2.000	BA		145	64
9-BK-2	2.000	BE		0.509	64
9-BK-2	2.000	CA		120000	64
9-BK-2	2.000	CD		0.601	64
9-BK-2	2.000	CO		3.62	64
9-BK-2	2.000	CR		21.2	64
9-BK-2	2.000	CU		27.6	64
9-BK-2	2.000	FE		9550	64
9-BK-2	2.000	HG		0.056	64
9-BK-2	2.000	K		2520	64
9-BK-2	2.000	MG		15300	64
9-BK-2	2.000	MN		271	64
9-BK-2	2.000	NA		606	64
9-BK-2	2.000	NI		12.6	64
9-BK-2	2.000	PB		5.73	64
9-BK-2	2.000	SB	LT	7.14	64
9-BK-2	2.000	SE	LT	0.202	64
9-BK-2	2.000	TL		34	64
9-BK-2	2.000	V		15.6	64
9-BK-2	2.000	ZN		144	64

µg/g Micrograms per gram
LT Analyte not detected

Attachment 6

Recalculated Human Health Risk Calculations

ATTACHMENT 6

Deseret Chemical Depot

Summary of Recalculated Soil Risk by SWMU

SWMU	Residential Carcinogenic Risk	Residential Noncarcinogenic Hazard Index	Industrial Carcinogenic Risk	Industrial Noncarcinogenic Hazard Index
3	2.E-07	0.5	1.E-07	0.0
5	**5.E-06**	0.8	1.E-06	0.2
8	2.E-07	0.3	1.E-07	0.0
9	**5.E-06**	0.8	8.E-07	0.0
30	***2.E-04***	**4.0**	3.E-05	0.2
31	2.E-07	0.2	1.E-07	0.0
Background	**5.E-05**	**6.1**	6.E-06	0.3

Italics denotes SWMUs with risks or HI values greater than those for background

Corrective Action is required if	**Risk ≥ 1.E-06**	**HI ≥ 1**	**Risk ≥ 1.E-04**	**HI ≥ 1**

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	AG		BKGD	20	1	0	5	0	0.300	0.030
Y	AL		BKGD	20	20	0	100	0	13000.000	4700.000
Y	AS		BKGD	19	19	0	100	0	11.000	10.000
Y	BA		BKGD	20	20	0	100	0	210.000	110.000
Y	BE		BKGD	20	20	0	100	0	0.660	0.220
N	CA	EN	BKGD	20	20	0	100	0	110000.000	54000.000
Y	CD		BKGD	19	12	0	63	0	0.560	0.220
Y	CO		BKGD	20	20	0	100	0	5.400	1.500
Y	CR		BKGD	20	20	0	100	0	19.000	8.500
Y	CU		BKGD	19	19	0	100	0	16.000	6.300
N	FE	EN	BKGD	20	20	0	100	0	13000.000	4000.000
Y	HG		BKGD	19	14	0	74	0	0.050	0.030
N	K	EN	BKGD	20	20	0	100	0	4400.000	1700.000
N	MG	EN	BKGD	20	20	0	100	0	12000.000	2300.000
Y	MN		BKGD	20	20	0	100	0	390.000	160.000
N	NA	EN	BKGD	20	20	0	100	0	2000.000	1600.000
Y	NI		BKGD	20	20	0	100	0	16.000	4.300
Y	PB		BKGD	19	20	0	105	0	16.000	9.600
Y	SB		BKGD	20	1	0	5	0	4.000	1.900
Y	SE		BKGD	20	1	0	5	0	0.130	0.020
Y	TL		BKGD	20	17	0	85	0	18.000	13.000
Y	V		BKGD	20	20	0	100	0	29.000	14.000
Y	ZN		BKGD	20	20	0	100	0	69.000	26.000

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	AG		BKGD	0.435	0.435			1.7291	0.312	0.312	EPC = UCL
Y	AL		BKGD	5530.000	25200.000			1.7291	14817.201	14817.201	EPC = UCL
Y	AS		BKGD	2.980	40.000			1.7341	14.978	14.978	EPC = UCL
Y	BA		BKGD	61.500	537.000			1.7291	252.530	252.530	EPC = UCL
Y	BE		BKGD	0.303	1.210			1.7291	0.745	0.745	EPC = UCL
N	CA	EN	BKGD	32200.000	250000.000			1.7291	130878.480	130878.480	EPC = UCL
Y	CD		BKGD	0.411	0.982			1.7341	0.648	0.648	EPC = UCL
Y	CO		BKGD	2.120	8.590			1.7291	5.980	5.980	EPC = UCL
Y	CR		BKGD	8.120	48.500			1.7291	22.286	22.286	EPC = UCL
Y	CU		BKGD	7.240	27.600			1.7341	18.506	18.506	EPC = UCL
N	FE	EN	BKGD	6140.000	24300.000			1.7291	14546.554	14546.554	EPC = UCL
Y	HG		BKGD	0.031	0.143			1.7341	0.062	0.062	EPC = UCL
N	K	EN	BKGD	2270.000	7940.000			1.7291	5057.285	5057.285	EPC = UCL
N	MG	EN	BKGD	8930.000	16150.000			1.7291	12889.269	12889.269	EPC = UCL
Y	MN		BKGD	167.000	658.000			1.7291	451.862	451.862	EPC = UCL
N	NA	EN	BKGD	429.000	5610.000			1.7291	2618.622	2618.622	EPC = UCL
Y	NI		BKGD	10.100	27.900			1.7291	17.663	17.663	EPC = UCL
Y	PB		BKGD	5.450	35.000			1.7341	19.819	19.819	EPC = UCL
Y	SB		BKGD	11.900	11.900			1.7291	4.735	4.735	EPC = UCL
Y	SE		BKGD	0.208	0.208			1.7291	0.138	0.138	EPC = UCL
Y	TL		BKGD	5.430	49.900			1.7291	23.026	23.026	EPC = UCL
Y	V		BKGD	15.600	62.600			1.7291	34.413	34.413	EPC = UCL
Y	ZN		BKGD	36.100	144.000			1.7291	79.053	79.053	EPC = UCL

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
Y	AG		BKGD	0.000000	COC; No RBSL	- -	390.000000	0.000799	0.01
Y	AL		BKGD	0.000000	COC; No RBSL	- -	77000.000000	0.192431	3.16
Y	AS		BKGD	0.360000	4.2E-05	89.03	23.000000	0.651230	10.70
Y	BA		BKGD	0.000000	COC; No RBSL	- -	5400.000000	0.046765	0.77
Y	BE		BKGD	0.150000	5.0E-06	10.63	390.000000	0.001910	0.03
N	CA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	CD		BKGD	920.000000	7.0E-10	0.00	39.000000	0.016603	0.27
Y	CO		BKGD	0.000000	COC; No RBSL	- -	460.000000	0.013000	0.21
Y	CR		BKGD	140.000000	1.6E-07	0.34	390.000000	0.057145	0.94
Y	CU		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	FE	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	HG		BKGD	0.000000	COC; No RBSL	- -	23.000000	0.002693	0.04
N	K	EN	BKGD	EN	EN	EN	EN	EN	EN
N	MG	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	MN		BKGD	0.000000	COC; No RBSL	- -	390.000000	1.158621	19.03
N	NA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	NI		BKGD	0.000000	COC; No RBSL	- -	1500.000000	0.011775	0.19
Y	PB		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	SB		BKGD	0.000000	COC; No RBSL	- -	31.000000	0.152729	2.51
Y	SE		BKGD	0.000000	COC; No RBSL	- -	390.000000	0.000353	0.01
Y	TL		BKGD	0.000000	COC; No RBSL	- -	6.200000	3.713919	61.01
Y	V		BKGD	0.000000	COC; No RBSL	- -	540.000000	0.063728	1.05
Y	ZN		BKGD	0.000000	COC; No RBSL	- -	23000.000000	0.003437	0.06
				TOTAL RISK	4.7E-05	100.00		6.087139	100.00

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
Y	AG		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.000034	0.01
Y	AL		BKGD	0.000000	COC; No RBSL	- -	10000000.000000	0.001482	0.55
Y	AS		BKGD	2.900000	5 2E-06	87.79	550.000000	0.027233	10 13
Y	BA		BKGD	0.000000	COC; No RBSL	- -	130000.000000	0.001943	0.72
Y	BE		BKGD	1.200000	6 2E-07	10.55	9200.000000	0.000081	0.03
N	CA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	CD		BKGD	1500.000000	4.3E-10	0.01	920.000000	0.000704	0.26
Y	CO		BKGD	0.000000	COC; No RBSL	- -	11000.000000	0.000544	0.20
Y	CR		BKGD	230.000000	9.7E-08	1.65	920.000000	0.024224	9.01
Y	CU		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	FE	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	HG		BKGD	0.000000	COC; No RBSL	- -	550.000000	0.000113	0.04
N	K	EN	BKGD	EN	EN	EN	EN	EN	EN
N	MG	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	MN		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.049115	18.28
N	NA	EN	BKGD	EN	EN	EN	EN	EN	EN
Y	NI		BKGD	0.000000	COC; No RBSL	- -	37000.000000	0.000477	0.18
Y	PB		BKGD	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	SB		BKGD	0.000000	COC; No RBSL	- -	730.000000	0.006486	2.41
Y	SE		BKGD	0.000000	COC; No RBSL	- -	9200.000000	0.000015	0.01
Y	TL		BKGD	0.000000	COC; No RBSL	- -	150.000000	0.153509	57.12
Y	V		BKGD	0.000000	COC; No RBSL	- -	13000.000000	0.002647	0.98
Y	ZN		BKGD	0.000000	COC; No RBSL	- -	550000.000000	0.000144	0.05
					5.9E-06	100.00		0.268750	100.00

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
N	AL		3	24	24	0	100	0	12861.667	5801.527
N	AS		3	24	24	12	100	50	122.732	149.592
Y	BA		3	24	24	0	100	0	264.604	131.549
N	BE		3	24	21	1	88	4	0.674	0.257
N	C16A	NT	3	1	1	1	100	100	0.350	
N	C17	NT	3	1	1	1	100	100	1.300	
N	C27	NT	3	1	1	1	100	100	0.820	
N	C29	NT	3	1	1	1	100	100	0.560	
N	CA	EN	3	24	24	0	100	0	87508.333	41292.761
Y	CD		3	24	9	2	38	8	0.558	0.387
Y	CO		3	24	24	1	100	4	5.777	2.445
Y	CR		3	24	24	1	100	4	22.153	21.210
Y	CU		3	24	24	1	100	4	16.624	10.605
Y	CYN		3	24	1	1	4	4	0.513	0.259
N	DEGLYC	NT	3	2	2	2	100	100	0.515	0.106
Y	DNBP		3	24	1	1	4	4	29.646	4.185
Y	FANT		3	24	1	1	4	4	32.588	6.916
N	FE	EN	3	24	24	1	100	4	14090.833	6412.625
N	GSITOS	NT	3	2	2	2	100	100	0.818	0.251
Y	HG		3	24	24	17	100	71	0.573	0.777
N	K	EN	3	24	24	2	100	8	4328.542	2251.343
N	MG	EN	3	24	24	5	100	21	12904.583	3401.722
N	MN		3	24	24	3	100	13	438.479	162.774
Y	MPA		3	24	2	2	8	8	1.489	2.022
N	NA	EN	3	24	24	0	100	0	1634.917	1097.106
Y	NI		3	24	24	0	100	0	15.939	6.029
N	OMCTSX	NT	3	2	2	2	100	100	0.008	0.004
Y	PB		3	24	24	6	100	25	31.128	38.796
Y	PCB254		3	24	2	8	8	8	0.056	0.061
N	PCB260		3	24	1	1	2	2	0.046	0.031
Y	PYR		3	24	1	1	4	4	15.816	3.351
Y	SB		3	24	2	1	8	4	4.356	2.747
N	TL		3	24	24	1	100	4	31.335	8.773
Y	V		3	24	24	0	100	0	26.324	14.015
Y	ZN		3	24	24	2	100	8	115.223	177.047

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
N	AL		3	3150 000	21400.000	12861.667	5801.527	1 7139	14891.322	14891.322	EPC = UCL
N	AS		3	9.570	500.000	122.732	149.592	1.7139	175 067	175 067	EPC = UCL
Y	BA		3	63.800	526 000	264.604	131 549	1.7139	310.626	310.626	EPC = UCL
N	BE		3	0.350	1.220	0.735	0.213	1.7139	0.764	0.764	EPC = UCL
N	C16A	NT	3	0.350	0.350	0.350		0 0000	0.350	0.350	EPC = MAX
N	C17	NT	3	1.300	1.300	1.300		0.0000	1.300	1.300	EPC = MAX
N	C27	NT	3	0.820	0 820	0.820		0 0000	0.820	0.820	EPC = MAX
N	C29	NT	3	0.560	0.560	0.560		0.0000	0.560	0.560	EPC = MAX
N	CA	EN	3	44800.000	180000.000	87508.333	41292.761	1.7139	101954.538	101954.538	EPC = UCL
Y	CD		3	0.540	2.000	0 906	0.462	1.7139	0.693	0.693	EPC = UCL
Y	CO		3	1.510	8.890	5.777	2.445	1.7139	6 632	6.632	EPC = UCL
Y	CR		3	7.140	117.000	22.153	21 210	1.7139	29.573	29.573	EPC = UCL
Y	CU		3	9.280	61.200	16.624	10.605	1.7139	20.334	20.334	EPC = UCL
Y	CYN		3	1.730	1.730	1.730		1.7139	0.604	0.604	EPC = UCL
N	DEGLYC	NT	3	0.440	0.590	0.515		6.3138	0.988	0.590	EPC = MAX
Y	DNBP		3	10.000	10.000	10.000		1.7139	31.110	10.000	EPC = MAX
Y	FANT		3	0.120	0.120	0.120		1.7139	35.008	0.120	EPC = MAX
N	FE	EN	3	4430.000	30800.000	14090.833	6412.625	1.7139	16334.279	16334.279	EPC = UCL
N	GSITOS	NT	3	0.640	0.995	0.818		6.3138	1.939	0.995	EPC = MAX
Y	HG		3	0.037	2.800	0.573	0.777	1.7139	0.845	0.845	EPC = UCL
N	K	EN	3	1480.000	10100.000	4328.542	2251.343	1 7139	5116.171	5116.171	EPC = UCL
N	MG	EN	3	9370 000	23500.000	12904.583	3401.722	1.7139	14094 670	14094.670	EPC = UCL
N	MN		3	130.000	737.000	438.479	162.774	1.7139	495.425	495.425	EPC = UCL
Y	MPA		3	2.940	10.800	6.870		1.7139	2.196	2.196	EPC = UCL
N	NA	EN	3	424.000	3780.000	1634.917	1097.106	1.7139	2018.738	2018.738	EPC = UCL
Y	NI		3	5.600	27.400	15.939	6.029	1.7139	18.048	18.048	EPC = UCL
N	OMCTSX	NT	3	0.005	0.010	0.008		6.3138	0.026	0.010	EPC = MAX
Y	PB		3	7.740	170.000	31.128	38.796	1.7139	44.701	44.701	EPC = UCL
Y	PCB254		3	0.118	0.331	0.225		1.7139	0.057	0.057	EPC = UCL
N	PCB260		3	0.193	0.193	0.193		1.7139	0.057	0.193	EPC = MAX
Y	PYR		3	0.083	0.083	0.083		1 7139	16.988	0.083	EPC = MAX
Y	SB		3	10.700	15 300	13.000		1.7139	5 317	5.317	EPC = UCL
N	TL		3	16 650	54.900	31 335	8 773	1.7139	34.404	34.404	EPC = UCL
Y	V		3	4 770	51.700	26.324	14.015	1.7139	31.227	31.227	EPC = UCL
Y	ZN		3	40 200	820.000	115.223	177.047	1.7139	177.163	177.163	EPC = UCL

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
N	AL		3	0.000000	Not a COC	--	77000 000000	Not a COC	--
N	AS		3	0.360000	Not a COC	--	23.000000	Not a COC	--
Y	BA		3	0.000000	COC; No RBSL	--	5400.000000	0.057523	11.19
N	BE		3	0.150000	Not a COC	--	390.000000	Not a COC	--
N	C16A	NT	3	NT	NT	NT	NT	NT	NT
N	C17	NT	3	NT	NT	NT	NT	NT	NT
N	C27	NT	3	NT	NT	NT	NT	NT	NT
N	C29	NT	3	NT	NT	NT	NT	NT	NT
N	CA	EN	3	EN	EN	EN	EN	EN	EN
Y	CD		3	920.000000	7.5E-10	0.36	39.000000	0.017769	3.46
Y	CO		3	0.000000	COC; No RBSL	--	460.000000	0.014417	2.80
Y	CR		3	140.000000	2.1E-07	99.64	390.000000	0.075828	14.75
Y	CU		3	0.000000	COC; No RBSL	--	0.000000	COC; No RBSL	--
Y	CYN		3	0.000000	COC; No RBSL	--	0.000000	COC; No RBSL	--
N	DEGLYC	NT	3	NT	NT	NT	NT	NT	NT
Y	DNBP		3	0.000000	COC; No RBSL	--	4700.000000	0.002128	0.41
Y	FANT		3	0.000000	COC; No RBSL	--	1900.000000	0.000063	0.01
N	FE	EN	3	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	3	NT	NT	NT	NT	NT	NT
Y	HG		3	0.000000	COC; No RBSL	--	23 000000	0.036739	7.14
N	K	EN	3	EN	EN	EN	EN	EN	EN
N	MG	EN	3	EN	EN	EN	EN	EN	EN
N	MN		3	0.000000	Not a COC	--	390.000000	Not a COC	--
Y	MPA		3	0.000000	COC; No RBSL	--	0.000000	COC; No RBSL	--
N	NA	EN	3	EN	EN	EN	EN	EN	EN
Y	NI		3	0.000000	COC; No RBSL	--	1500.000000	0.012032	2.34
N	OMCTSX	NT	3	NT	NT	NT	NT	NT	NT
Y	PB		3	0.000000	COC; No RBSL	--	0.000000	COC; No RBSL	--
Y	PCB254		3	0.000000	COC; No RBSL	--	0.940000	0.060638	11.79
N	PCB260		3	0.040000	Not a COC	--	0.000000	Not a COC	--
Y	PYR		3	0.000000	COC; No RBSL	--	1400 000000	0.000059	0.01
Y	SB		3	0.000000	COC; No RBSL	--	31.000000	0.171516	33 35
N	TL		3	0.000000	Not a COC	--	6.200000	Not a COC	--
Y	V		3	0.000000	COC; No RBSL	--	540.000000	0.057828	11.25
Y	ZN		3	0.000000	COC; No RBSL	--	23000 000000	0 007703	1.50
				TOTAL RISK	2.1E-07	100 00		HI 0.514244	100.00

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
N	AL		3	0.000000	Not a COC	- -	10000000 000000	Not a COC	- -
N	AS		3	2.900000	Not a COC	- -	550.000000	Not a COC	- -
Y	BA		3	0.000000	COC; No RBSL	- -	130000.000000	0 002389	4 95
N	BE		3	1.200000	Not a COC	- -	9200.000000	Not a COC	- -
N	C16A	NT	3	NT	NT	NT	NT	NT	NT
N	C17	NT	3	NT	NT	NT	NT	NT	NT
N	C27	NT	3	NT	NT	NT	NT	NT	NT
N	C29	NT	3	NT	NT	NT	NT	NT	NT
N	CA	EN	3	EN	EN	EN	EN	EN	EN
Y	CD		3	1500.000000	4.6E-10	0.36	920.000000	0.000753	1.56
Y	CO		3	0.000000	COC; No RBSL	- -	11000.000000	0.000603	1.25
Y	CR		3	230.000000	1.3E-07	99.64	920 000000	0.032145	66.56
Y	CU		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	CYN		3	0.000000	COC; No RBSL	- -	37000.000000	0.000016	0.03
N	DEGLYC	NT	3	NT	NT	NT	NT	NT	NT
Y	DNBP		3	0.000000	COC; No RBSL	- -	30000.000000	0.000333	0.69
Y	FANT		3	0.000000	COC; No RBSL	- -	12000.000000	0.000010	0.02
N	FE	EN	3	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	3	NT	NT	NT	NT	NT	NT
Y	HG		3	0.000000	COC; No RBSL	- -	550.000000	0.001536	3.18
N	K	EN	3	EN	EN	EN	EN	EN	EN
N	MG	EN	3	EN	EN	EN	EN	EN	EN
N	MN		3	0.000000	Not a COC	- -	9200.000000	Not a COC	- -
Y	MPA		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	NA	EN	3	EN	EN	EN	EN	EN	EN
Y	NI		3	0.000000	COC; No RBSL	- -	37000.000000	0.000488	1.01
N	OMCTSX	NT	3	NT	NT	NT	NT	NT	NT
Y	PB		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
Y	PCB254		3	0.000000	COC; No RBSL	- -	0.000000	COC; No RBSL	- -
N	PCB260		3	0.040000	Not a COC	- -	0.000000	Not a COC	- -
Y	PYR		3	0.000000	COC; No RBSL	- -	9000.000000	0.000009	0.02
Y	SB		3	0.000000	COC; No RBSL	- -	730.000000	0 007284	15.08
N	TL		3	0.000000	Not a COC	- -	150.000000	Not a COC	- -
Y	V		3	0.000000	COC; No RBSL	- -	13000.000000	0.002402	4.97
Y	ZN		3	0.000000	COC; No RBSL	- -	550000.000000	0.000322	0.67
				TOTAL RISK	1 3E-07	100.00		HI 0.048291	100.00

Recalculated Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd	Arithmetic Mean	Standard Deviation	Minimum Detected Concentration (ug/g)
N	1MNAP	NT	5	1	1	1	100	100	0.47		0.47
N	2CHE1O	NT	5	1	1	1	100	100	0.41		0.41
Y	2MNAP		5	44	2	2	5	5	23.399	5.102	0.094
N	2PROL	NT	5	1	1	1	100	100	0.027		0.027
N	2TMPD	NT	5	3	3	3	100	100	1.607	0.953	0.52
Y	ACET		5	46	1	1	2	2	4.158	0.622	0.028
Y	AG		5	74	8	8	11	11	1.976	9.521	0.982
N	AL		5	74	74	1	100	1	13156.351	5236.769	3910
N	AS		5	74	74	1	100	1	6.971	7.038	1.98
Y	BA		5	74	74	0	100	0	192.881	105.236	47.9
Y	BE		5	74	54	4	73	5	0.6	0.337	0.295
N	C25	NT	5	1	1	1	100	100	0.42		0.42
N	C27	NT	5	4	4	4	100	100	0.753	0.418	0.3
N	C28	NT	5	1	1	1	100	100	0.42		0.42
N	C29	NT	5	7	7	7	100	100	1.259	0.815	0.43
N	CA	EN	5	74	74	0	100	0	115831.081	38278.822	10800
Y	CCL3F		5	46	1	1	2	2	0.000326086	0.002	0.015
Y	CD		5	74	47	26	64	35	1.446	3.068	0.445
Y	CH2CL2		5	46	2	2	4	4	2.87	0.617	0.007
Y	CO		5	74	74	3	100	4	5.268	1.857	2.18
Y	CR		5	74	74	15	100	20	96.341	257.556	11
Y	CU		5	74	74	10	100	14	21.456	24.612	6.22
Y	CYN		5	74	1	1	1	1	0.496	0.31	3.13
Y	DBZFUR		5	44	1	1	2	2	17.105	2.622	0.11
Y	DEP		5	44	1	1	2	2	117.283	18.02	0.47
Y	DNBP		5	44	8	8	18	18	24.996	11.81	0.085
N	FE	EN	5	74	74	4	100	5	14672.162	8360.744	6220
N	GSITOS	NT	5	4	4	4	100	100	0.818	0.087	0.71
Y	HG		5	74	40	4	54	5	0.069	0.211	0.029
N	K	EN	5	74	74	0	100	0	3830.649	1415.695	878
Y	MEC8H5		5	46	2	2	4	4	0.373	0.079	0.001
N	MG	EN	5	74	74	6	100	8	13106.108	3411.254	7330
N	MN		5	74	74	3	100	4	376.446	153.231	145
Y	NA	EN	5	74	74	0	100	0	1094.649	795.451	394
Y	NAP		5	44	3	3	7	7	17.263	4.627	0.064
Y	NI		5	74	74	11	100	15	23.122	24.696	6.82
N	OMCTSX	NT	5	7	7	7	100	100	0.037	0.035	0.01
Y	PB		5	74	74	27	100	36	74.947	137.099	4.65
N	PCB260		5	46	2	2	4	4	0.046	0.03	0.157
Y	PHANTR		5	44	2	2	5	5	15.754	3.458	0.043
N	PHTHAN	NT	5	2	2	2	100	100	5.7	7.495	0.4
Y	SB		5	74	4	4	5	5	4.888	6.936	12.4
Y	SE		5	74	2	2	3	3	0.131	0.035	0.324
N	TCLTFE	NT	5	11	11	11	100	100	0.007	0.001	0.005
N	TL		5	74	46	0	62	0	13.041	11.212	4.74
Y	V		5	74	74	4	100	5	27.201	16.748	6.65
Y	ZN		5	74	74	18	100	24	191.995	389.881	30.5

Recalculated Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
N	1MNAP	NT	5	0 47	0.47		0	0.47	0.47	EPC = MAX
N	2CHE1O	NT	5	0 41	0.41		0	0.41	0 41	EPC = MAX
Y	2MNAP		5	0.48	0 287		1.6811	24.692	0.48	EPC = MAX
N	2PROL	NT	5	0 027	0.027		0	0.027	0 027	EPC = MAX
N	2TMPD	NT	5	2.3	1.607	0.953	2.92	3.214	2.3	EPC = MAX
Y	ACET		5	0.028	0.028		1.6794	4.312	0.028	EPC = MAX
Y	AG		5	78	15 847	26.436	1.666	3.82	3.82	EPC = UCL
N	AL		5	27700	13156 351	5236.769	1.666	14170.549	14170.549	EPC = UCL
N	AS		5	50	6.971	7.038	1.666	8.334	8.334	EPC = UCL
Y	BA		5	792	192 881	105 236	1.666	213.262	213.262	EPC = UCL
Y	BE		5	1.74	0.729	0.306	1.666	0.665	0.665	EPC = UCL
N	C25	NT	5	0.42	0.42		0	0.42	0.42	EPC = MAX
N	C27	NT	5	1.2	0.753	0 418	2.3534	1.245	1.2	EPC = MAX
N	C28	NT	5	0.42	0 42		0	0.42	0.42	EPC = MAX
N	C29	NT	5	2 3	1.259	0.815	1.9432	1 858	1.858	EPC = UCL
N	CA	EN	5	220000	115831 081	38278.822	1.666	123244 486	123244.486	EPC = UCL
Y	CCL3F		5	0 015	0.015		1.6794	0.001	0.001	EPC = UCL
Y	CD		5	22.5	2.076	3.719	1.666	2.04	2.04	EPC = UCL
Y	CH2CL2		5	0.01	0.009		1.6794	3.023	0.01	EPC = MAX
Y	CO		5	12.2	5.268	1.857	1.666	5.628	5.628	EPC = UCL
Y	CR		5	1680	96.341	257.556	1.666	146.222	146.222	EPC = UCL
Y	CU		5	170	21.456	24.612	1.666	26.223	26.223	EPC = UCL
Y	CYN		5	3.13	3.13		1.666	0.556	0.556	EPC = UCL
Y	DBZFUR		5	0.11	0.11		1.6811	17.77	0.11	EPC = MAX
Y	DEP		5	0.47	0.47		1.6811	121.85	0.47	EPC = MAX
Y	DNBP		5	0.92	0.23	0.292	1.6811	27.989	0.92	EPC = MAX
N	FE	EN	5	73200	14672.162	8360 744	1.666	16291.375	16291.375	EPC = UCL
N	GSITOS	NT	5	0.92	0.818	0.087	2.3534	0.92	0.92	EPC = MAX
Y	HG		5	1.8	0.116	0.28	1.666	0.11	0.11	EPC = UCL
N	K	EN	5	7590	3830.649	1415.695	1.666	4104.825	4104.825	EPC = UCL
Y	MEC6H5		5	0.008	0.005		1.6794	0.393	0.008	EPC = MAX
N	MG	EN	5	32200	13106.108	3411.254	1.666	13768.761	13768.761	EPC = UCL
N	MN		5	1160	376.448	153.231	1.666	406.122	406.122	EPC = UCL
Y	NA	EN	5	3630	1094.649	795.451	1.666	1248.703	1248.703	EPC = UCL
Y	NAP		5	0.6	0.355	0.271	1.6811	18.436	0.6	EPC = MAX
Y	NI		5	172	23.122	24.696	1.666	27.905	27.905	EPC = UCL
N	OMCTSX	NT	5	0.11	0.037	0.035	1.9432	0.063	0.063	EPC = UCL
Y	PB		5	750	74.947	137.099	1.666	101.499	101 499	EPC = UCL
N	PCB260		5	0.213	0.185		1 679	0.054	0.054	EPC = UCL
Y	PHANTR		5	0.13	0.087		1.6811	16.63	0.13	EPC = MAX
N	PHTHAN	NT	5	11	5.7		6.3138	39.162	11	EPC = MAX
Y	SB		5	57.6	27.95	20.515	1.666	6.231	6.231	EPC = UCL
Y	SE		5	0.355	0.34		1.666	0.138	0.138	EPC = UCL
N	TCLTFE	NT	5	0.01	0.007	0.001	1.8125	0.008	0.008	EPC = UCL
N	TL		5	34	19.972	8.61	1.666	15.212	15.212	EPC = UCL
Y	V		5	103	27 201	16.748	1.666	30.445	30.445	EPC = UCL
Y	ZN		5	2950	191.995	389.881	1.666	267.503	267.503	EPC = UCL

Recalculated Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
N	1MNAP	NT	5	NT	NT	NT	NT	NT	NT
N	2CHE1O	NT	5	NT	NT	NT	NT	NT	NT
Y	2MNAP		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2PROL	NT	5	NT	NT	NT	NT	NT	NT
N	2TMPD	NT	5	NT	NT	NT	NT	NT	NT
Y	ACET		5	0	COC; No RBSL	--	4700	0.000006	0 00
Y	AG		5	0	COC; No RBSL	--	390	0.009795	1.24
N	AL		5	0	Not a COC	--	77000	Not a COC	--
N	AS		5	0.36	Not a COC	--	23	Not a COC	--
Y	BA		5	0	COC; No RBSL	--	5400	0.039493	5.01
Y	BE		5	0.15	4.4E-06	80.88	390	0.001705	0.22
N	C25	NT	5	NT	NT	NT	NT	NT	NT
N	C27	NT	5	NT	NT	NT	NT	NT	NT
N	C28	NT	5	NT	NT	NT	NT	NT	NT
N	C29	NT	5	NT	NT	NT	NT	NT	NT
N	CA	EN	5	EN	EN	EN	EN	EN	EN
Y	CCL3F		5	0	COC; No RBSL	--	14000	0.000000	0.00
Y	CD		5	920	2.2E-09	0.04	39	0.052308	6.63
Y	CH2CL2		5	6	1.7E-09	0.03	2800	0.000004	0.00
Y	CO		5	0	COC; No RBSL	--	460	0.012235	1.55
Y	CR		5	140	1.0E-06	19.05	390	0.374928	47.54
Y	CU		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	CYN		5	0	COC; No RBSL	--	1500	0.000371	0.05
Y	DBZFUR		5	0	COC; No RBSL	--	190	0.000579	0.07
Y	DEP		5	0	COC; No RBSL	--	38000	0.000012	0.00
Y	DNBP		5	0	COC; No RBSL	--	4700	0.000196	0.02
N	FE	EN	5	EN	EN	EN	EN	EN	EN
N	GSITOS	NT	5	NT	NT	NT	NT	NT	NT
Y	HG		5	0	COC; No RBSL	--	23	0.004783	0.61
N	K	EN	5	EN	EN	EN	EN	EN	EN
Y	MEC6H5		5	0	COC; No RBSL	--	1000	0.000008	0.00
N	MG	EN	5	EN	EN	EN	EN	EN	EN
N	MN		5	0	Not a COC	--	390	Not a COC	--
Y	NA	EN	5	EN	EN	EN	EN	EN	EN
Y	NAP		5	0	COC; No RBSL	--	140	0.004286	0.54
Y	NI		5	0	COC; No RBSL	--	1500	0.018603	2.36
N	OMCTSX	NT	5	NT	NT	NT	NT	NT	NT
Y	PB		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PCB260		5	0.04	Not a COC	--	0	Not a COC	--
Y	PHANTR		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PHTHAN	NT	5	NT	NT	NT	NT	NT	NT
Y	SB		5	0	COC; No RBSL	--	31	0.201000	25.49
Y	SE		5	0	COC; No RBSL	--	390	0.000354	0.04
N	TCLTFE	NT	5	NT	NT	NT	NT	NT	NT
N	TL		5	0	Not a COC	--	6 2	Not a COC	--
Y	V		5	0	COC; No RBSL	--	540	0.056380	7.15
Y	ZN		5	0	COC; No RBSL	--	23000	0.011631	1.47
				TOTAL RISK	5.5E-06	100 00		HI 0.788675	100.00

Recalculated Risk for SWMU 5 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
N	1MNAP	NT	5	NT	NT	NT	NT	NT	NT
N	2CHE1O	NT	5	NT	NT	NT	NT	NT	NT
Y	2MNAP		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2PROL	NT	5	NT	NT	NT	NT	NT	NT
N	2TMPD	NT	5	NT	NT	NT	NT	NT	NT
Y	ACET		5	0	COC; No RBSL	--	30000	0.000001	0 00
Y	AG		5	0	COC; No RBSL	--	9200	0.000415	0 23
N	AL		5	0	Not a COC	--	10000000	Not a COC	--
N	AS		5	2.9	Not a COC	--	550	Not a COC	--
Y	BA		5	0	COC; No RBSL	--	130000	0.001640	0 92
Y	BE		5	1.2	5.5E-07	46.48	9200	0.000072	0.04
N	C25	NT	5	NT	NT	NT	NT	NT	NT
N	C27	NT	5	NT	NT	NT	NT	NT	NT
N	C28	NT	5	NT	NT	NT	NT	NT	NT
N	C29	NT	5	NT	NT	NT	NT	NT	NT
N	CA	EN	5	EN	EN	EN	EN	EN	NE
Y	CCL3F		5	0	COC; No RBSL	--	90000	0.000000	0.00
Y	CD		5	1500	1.4E-09	0.11	920	0.002217	1.25
Y	CH2CL2		5	11	9.1E-10	0.08	18000	0.000001	0.00
Y	CO		5	0	COC; No RBSL	--	11000	0.000512	0.29
Y	CR		5	230	6.4E-07	53.33	920	0.158937	89.46
Y	CU		5	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	CYN		5	0	COC; No RBSL	--	37000	0.000015	0.01
Y	DBZFUR		5	0	COC; No RBSL	--	1200	0.000092	0.05
Y	DEP		5	0	COC; No RBSL	--	240000	0.000002	0.00
Y	DNBP		5	0	COC; No RBSL	--	30000	0.000031	0.02
N	FE	EN	5	EN	EN	EN	EN	EN	NE
N	GSITOS	NT	5	NT	NT	NT	NT	NT	NT
Y	HG		5	0	COC; No RBSL	--	550	0.000200	0.11
N	K	EN	5	EN	EN	EN	EN	EN	NE
Y	MEC8H5		5	0	COC; No RBSL	--	1600	0.000005	0.00
N	MG	EN	5	EN	EN	EN	EN	EN	NE
N	MN		5	0	Not a COC	--	9200	Not a COC	--
Y	NA	EN	5	EN	EN	EN	EN	EN	NE
Y	NAP		5	0	COC; No RBSL	--	430	0.001395	0.79
Y	NI		5	0	COC; No RBSL	--	37000	0.000754	0.42
N	OMCTSX	NT	5	NT	NT	NT	NT	NT	NT
Y	PB		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PCB260		5	0.04	Not a COC	--	0	Not a COC	--
Y	PHANTR		5	0	COC; No RBSL	--	0	COC; No RBSL	--
N	PHTHAN	NT	5	NT	NT	NT	NT	NT	NT
Y	SB		5	0	COC; No RBSL	--	730	0.008536	4.80
Y	SE		5	0	COC; No RBSL	--	9200	0.000015	0.01
N	TCLTFE	NT	5	NT	NT	NT	NT	NT	NT
N	TL		5	0	Not a COC	--	150	Not a COC	--
Y	V		5	0	COC; No RBSL	--	13000	0.002342	1.32
Y	ZN		5	0	COC; No RBSL	--	550000	0.000486	0.27
				TOTAL RISK	1.2E-06	100.00		HI 0.177668	100.00

Recalculated Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Number of Samples	Number of Detections	Hits > Bkgd	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	24DNT		8	80	1	1	1	1	0.238	0 235
Y	AG		8	40	3	3	8	8	0.324	0.114
N	AL		8	40	40	0	100	0	12190.5	3411.499
N	AS		8	40	40	0	100	0	8.482	4.945
Y	BA		8	40	40	0	100	0	356 615	679 25
N	BE		8	40	27	0	68	0	0.503	0.215
N	C16A	NT	8	1	1	1	100	100	1.2	
N	C27	NT	8	2	2	2	100	100	0.33	0.014
N	C29	NT	8	5	5	5	100	100	0.592	0.233
Y	C6H6		8	40	1	1	3	3	0.731	0 118
N	CA	EN	8	40	40	0	100	0	111615	29943.13
Y	CCL3F		8	40	6	6	15	15	0.001	0.002
Y	CD		8	40	17	10	43	25	1.016	1.478
Y	CO		8	40	40	0	100	0	5.445	1.265
Y	CR		8	40	40	2	100	5	20.526	13.153
Y	CU		8	40	40	12	100	30	59.293	112.045
N	FE	EN	8	40	40	0	100	0	12617.75	3846.939
Y	HG		8	40	26	6	65	15	0.077	0.121
Y	HMX		8	40	1	1	3	3	0.388	0.346
N	K	EN	8	40	40	0	100	0	3764.375	1623.251
Y	MEC6H5		8	40	1	1	3	3	0.38	0.061
N	MG	EN	8	40	40	16	100	40	16215.75	7591.312
N	MN		8	40	40	0	100	0	406.113	109.981
N	NA	EN	8	40	40	1	100	3	1544.05	1220.949
Y	NI		8	40	40	2	100	5	19.156	8.209
N	OMCTSX	NT	8	2	2	2	100	100	0.051	0.011
Y	PB		8	40	40	6	100	15	26.64	42.738
Y	PETN		8	40	8	8	20	20	0.523	1.058
Y	PHANTR		8	40	1	1	3	3	16.09	2.596
N	SB		8	40	1	1	3	3	4.118	3.467
N	TL		8	40	29	0	73	0	21.615	12.762
Y	V		8	40	40	0	100	0	21.188	6 121
Y	ZN		8	40	40	10	100	25	237 925	537.724

Recalculated Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	24DNT		8	2.31	2 31	2.31		1.6644	0.282	0.282	EPC = UCL
Y	AG		8	0.45	0.837	0.683	0.205	1.6849	0.354	0.354	EPC = UCL
N	AL		8	4200	19200	12190.5	3411.499	1 6849	13099.344	13099.344	EPC = UCL
N	AS		8	3.15	25	8.482	4.945	1.6849	9.799	9.799	EPC = UCL
Y	BA		8	83.2	4300	356.615	679.25	1 6849	537.571	537.571	EPC = UCL
N	BE		8	0.322	0.901	0.625	0 148	1.6849	0.56	0.56	EPC = UCL
N	C16A	NT	8	1.2	1.2	1.2		0	1.2	1.2	EPC = MAX
N	C27	NT	8	0.32	0.34	0.33		6.3138	0.393	0.34	EPC = MAX
N	C29	NT	8	0.43	1	0.592	0 233	2.1318	0.814	0.814	EPC = UCL
Y	C6H6		8	0.005	0.005	0.005		1.6849	0.762	0.005	EPC = MAX
N	CA	EN	8	28300	190000	111615	29943.13	1.6849	119592.032	119592.032	EPC = UCL
Y	CCL3F		8	0.006	0.008	0.007	0.001	1.6849	0.002	0.002	EPC = UCL
Y	CD		8	0.415	6.43	1.917	1.955	1.6849	1.41	1.41	EPC = UCL
Y	CO		8	3.1	8 35	5.445	1.265	1.6849	5.782	5 782	EPC = UCL
Y	CR		8	8.95	75.8	20.526	13.153	1.6849	24.03	24.03	EPC = UCL
Y	CU		8	5.54	557	59.293	112.045	1.6849	89.142	89.142	EPC = UCL
N	FE	EN	8	5810	22100	12617.75	3846.939	1.6849	13642.598	13642.598	EPC = UCL
Y	HG		8	0.029	0.591	0.112	0.138	1.6849	0.109	0.109	EPC = UCL
Y	HMX		8	2.52	2.52	2.52		1.6849	0.48	0.48	EPC = UCL
N	K	EN	8	1000	7400	3764.375	1623.251	1.6849	4196.819	4196.819	EPC = UCL
Y	MEC6H5		8	0.002	0.002	0.002		1.6849	0.396	0.002	EPC = MAX
N	MG	EN	8	9930	58000	16215.75	7591 312	1 6849	18238.122	18238.122	EPC = UCL
N	MN		8	159	634	406.113	109.981	1.6849	435.413	435.413	EPC = UCL
N	NA	EN	8	250	5730	1544.05	1220.949	1.6849	1869.318	1869.318	EPC = UCL
Y	NI		8	11.3	57.9	19.156	8.209	1.6849	21.343	21.343	EPC = UCL
N	OMCTSX	NT	8	0.043	0.059	0.051		6.3138	0.1	0.059	EPC = MAX
Y	PB		8	7.12	240	26.64	42.738	1.6849	38.026	38.026	EPC = UCL
Y	PETN		8	2.6	2.64	2.613	0.016	1.6849	0.805	0.805	EPC = UCL
Y	PHANTR		8	0.082	0.082	0.082		1.6849	16.782	0.082	EPC = MAX
N	SB		8	25.5	25.5	25.5		1.6849	5.042	5.042	EPC = UCL
N	TL		8	20.7	35.2	29.186	3.312	1.6849	25.015	25.015	EPC = UCL
Y	V		8	11.2	38.4	21 188	6.121	1.6849	22.819	22.819	EPC = UCL
Y	ZN		8	30.5	2820	237.925	537 724	1 6849	381.178	381.178	EPC = UCL

Recalculated Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
Y	24DNT		8	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	AG		8	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	AL		8	0	Not a COC	- -	77000	Not a COC	- -
N	AS		8	0.36	Not a COC	- -	23	Not a COC	- -
Y	BA		8	0	COC; No RBSL	- -	5400	0.099550185	34.58
N	BE		8	0.15	Not a COC	- -	390	Not a COC	- -
N	C16A	NT	8	NT	NT	NT	NT	NT	NT
N	C27	NT	8	NT	NT	NT	NT	NT	NT
N	C29	NT	8	NT	NT	NT	NT	NT	NT
Y	C6H6		8	0.52	9.61538E-09	5.26	0	COC; No RBSL	- -
N	CA	EN	8	EN	EN	EN	EN	EN	EN
Y	CCL3F		8	0	COC; No RBSL	- -	14000	1.42857E-07	0.00
Y	CD		8	920	1.53261E-09	0.84	39	0.036153846	12.56
Y	CO		8	0	COC; No RBSL	- -	460	0.012569565	4.37
Y	CR		8	140	1.71643E-07	93.90	390	0.061615385	21.40
Y	CU		8	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	FE	EN	8	EN	EN	EN	EN	EN	EN
Y	HG		8	0	COC; No RBSL	- -	23	0.00473913	1.65
Y	HMX		8	0	COC; No RBSL	- -	2400	0.0002	0.07
N	K	EN	8	EN	EN	EN	EN	EN	EN
Y	MEC6H5		8	0	COC; No RBSL	- -	1000	0.000002	0.00
N	MG	EN	8	0	Not a COC	- -	0	Not a COC	- -
N	MN		8	EN	EN	EN	EN	EN	EN
N	NA	EN	8	EN	EN	EN	EN	EN	EN
Y	NI		8	0	COC; No RBSL	- -	1500	0.014228667	4.94
N	OMCTSX	NT	8	NT	NT	NT	NT	NT	NT
Y	PB		8	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	PETN		8		COC; No RBSL	- -		COC; No RBSL	- -
Y	PHANTR		8	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	SB		8	0	Not a COC	- -	31	Not a COC	- -
N	TL		8	0	Not a COC	- -	6.2	Not a COC	- -
Y	V		8	0	COC; No RBSL	- -	540	0.042257407	14.68
Y	ZN		8	0	COC; No RBSL	- -	23000	0.016572957	5.76
				TOTAL RISK	1.8E-07	100.00		HI 0.287889	100.00

Recalculated Risk for SWMU 8 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
Y	24DNT		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	AG		8	0	COC; No RBSL	--	9200	3.84783E-05	0.11
N	AL		8	0	Not a COC	--	10000000	Not a COC	--
N	AS		8	2.9	Not a COC	--	550	Not a COC	--
Y	BA		8	0	COC; No RBSL	--	130000	0.004135162	11.61
N	BE		8	1.2	Not a COC	--	9200	Not a COC	--
N	C16A	NT	8	NT	NT	NT	NT	NT	NT
N	C27	NT	8	NT	NT	NT	NT	NT	NT
N	C29	NT	8	NT	NT	NT	NT	NT	NT
Y	C6H6		8	0.9	5.55556E-09	5.01	0	COC; No RBSL	--
N	CA	EN	8	EN	EN	EN	EN	EN	EN
Y	CCL3F		8	0	COC; No RBSL	--	90000	2.22222E-08	0.00
Y	CD		8	1500	9.4E-10	0.85	920	0.001532609	4.30
Y	CO		8	0	COC; No RBSL	--	11000	0.000525636	1.48
Y	CR		8	230	1.04478E-07	94.15	920	0.026119565	73.35
Y	CU		8	0	COC; No RBSL	--	0	COC; No RBSL	--
N	FE	EN	8	EN	EN	EN	EN	EN	EN
Y	HG		8	0	COC; No RBSL	--	550	0.000198182	0.56
Y	HMX		8	0	COC; No RBSL	--	15000	0.000032	0.09
N	K	EN	8	EN	EN	EN	EN	EN	EN
Y	MEC6H5		8	0	COC; No RBSL	--	1600	0.00000125	0.00
N	MG	EN	8	0	Not a COC	--	0	Not a COC	--
N	MN		8	EN	EN	EN	EN	EN	EN
N	NA	EN	8	EN	EN	EN	EN	EN	EN
Y	NI		8	0	COC; No RBSL	--	37000	0.000576838	1.62
N	OMCTSX	NT	8	NT	NT	NT	NT	NT	NT
Y	PB		8	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		8		COC; No RBSL	--		COC; No RBSL	--
Y	PHANTR		8	0	COC; No RBSL	--	0	COC; No RBSL	--
N	SB		8	0	Not a COC	--	730	Not a COC	--
N	TL		8	0	Not a COC	--	150	Not a COC	--
Y	V		8	0	COC; No RBSL	--	13000	0.001755308	4.93
Y	ZN		8	0	COC; No RBSL	--	550000	0.000693051	1.95
				TOTAL RISK	1.1E-07	100.00		HI 0.035608	100.00

Recalculated Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
N	17PTCE	NT	9	SOIL	MERGED	1	1	1	100	100	2.1	
Y	ACET		9	SOIL	MERGED	131	3	3	2	2	4.153	0.635
N	AL		9	SOIL	MERGED	131	131	1	100	1	12847.099	4980.212
N	AS		9	SOIL	MERGED	131	131	2	100	2	9.786	11.715
Y	B2EHP		9	SOIL	MERGED	131	3	3	2	2	151.514	22.863
Y	BA		9	SOIL	MERGED	131	131	0	100	0	192.376	56.49
Y	BE		9	SOIL	MERGED	131	117	16	89	12	0.654	0.34
N	C16A	NT	9	SOIL	MERGED	2	2	2	100	100	0.42	0 127
N	C27	NT	9	SOIL	MERGED	3	3	3	100	100	0.577	0 225
N	C29	NT	9	SOIL	MERGED	9	9	9	100	100	0.691	0.3
N	CA	EN	9	SOIL	MERGED	131	131	0	100	0	117025.954	33364.743
Y	CCL3F		9	SOIL	MERGED	131	14	14	11	11	0.001	0.002
Y	CD		9	SOIL	MERGED	131	44	3	34	2	76336.345	873704.015
Y	CL6BZ		9	SOIL	MERGED	131	2	2	2	2	16.261	1.928
Y	CO		9	SOIL	MERGED	131	130	1	99	1	5.415	1.348
Y	CR		9	SOIL	MERGED	131	130	0	99	0	15.854	4.099
Y	CU		9	SOIL	MERGED	131	131	3	100	2	20.791	83.452
Y	DNBP		9	SOIL	MERGED	131	19	19	15	15	26.172	10.582
N	DOAD	NT	9	SOIL	MERGED	1	1	1	100	100	5.1	
N	ETOH	NT	9	SOIL	MERGED	3	3	3	100	100	0.01	0.003
N	FE	EN	9	SOIL	MERGED	131	131	0	100	0	12305.076	3111.44
Y	HG		9	SOIL	MERGED	131	55	2	42	2	0.03	0.037
Y	IMPA		9	SOIL	MERGED	131	1	1	1	1	0.642	1.308
N	K	EN	9	SOIL	MERGED	131	131	1	100	1	4045.863	1459.188
Y	MEC6H5		9	SOIL	MERGED	132	12	12	9	9	0.363	0.125
N	MG	EN	9	SOIL	MERGED	131	131	20	100	15	13070.076	3243.529
N	MN		9	SOIL	MERGED	131	131	5	100	4	410.297	123.509
Y	MPA		9	SOIL	MERGED	131	2	2	2	2	1.019	0.228
N	NA	EN	9	SOIL	MERGED	131	131	0	100	0	1377.553	905.02
Y	NI		9	SOIL	MERGED	131	131	0	100	0	15.321	4.024
N	OMCTSX	NT	9	SOIL	MERGED	5	5	5	100	100	0.034	0.017
Y	PB		9	SOIL	MERGED	131	131	8	100	6	17.788	23.942
Y	PCB248		9	SOIL	MERGED	131	3	3	6	6	0.047	0 047
Y	PCB254		9	SOIL	MERGED	131	1	1	2	2	0.046	0.055
Y	SB		9	SOIL	MERGED	131	6	2	5	2	76339.755	873703 715
Y	SE		9	SOIL	MERGED	131	2	2	2	2	0 127	0.016
N	TCLTFE	NT	9	SOIL	MERGED	5	5	5	100	100	0.01	0.002
N	TCOS	NT	9	SOIL	MERGED	1	1	1	100	100	0.43	
N	TL		9	SOIL	MERGED	131	82	0	63	0	13.141	11.79
Y	V		9	SOIL	MERGED	131	131	0	100	0	23.785	8.407
Y	ZN		9	SOIL	MERGED	131	131	1	100	1	57.25	30.644

Recalculated Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
N	17PTCE	NT	9	SOIL	MERGED	2 1	2.1	2.1		0	2.1	2.1	EPC = MAX
Y	ACET		9	SOIL	MERGED	0.02	0.022	0.021	0.001	1.64	4.244	0.022	EPC = MAX
N	AL		9	SOIL	MERGED	1400	50400	12847.099	4980.212	1.64	13560.701	13560.701	EPC = UCL
N	AS		9	SOIL	MERGED	1.53	97	9.786	11.715	1.64	11.465	11.465	EPC = UCL
Y	B2EHP		9	SOIL	MERGED	0.98	5 6	2.76	2.486	1.64	154.79	5.6	EPC = MAX
Y	BA		9	SOIL	MERGED	13.8	467	192.376	56.49	1.64	200.47	200 47	EPC = UCL
Y	BE		9	SOIL	MERGED	0.306	1.67	0 702	0.327	1.64	0.703	0.703	EPC = UCL
N	C16A	NT	9	SOIL	MERGED	0.33	0.51	0.42		6.3138	0.987	0.51	EPC = MAX
N	C27	NT	9	SOIL	MERGED	0.33	0.77	0.577	0.225	2.92	0.956	0 77	EPC = MAX
N	C29	NT	9	SOIL	MERGED	0.33	1.2	0.691	0.3	1.8595	0.877	0.877	EPC = UCL
N	CA	EN	9	SOIL	MERGED	10100	200000	117025.954	33364 743	1.64	121806.703	121806.703	EPC = UCL
Y	CCL3F		9	SOIL	MERGED	0 006	0.011	0.007	0.002	1.64	0.001	0.001	EPC = UCL
Y	CD		9	SOIL	MERGED	0.414	3.39	0.707	0.478	1.64	201527.179	3.39	EPC = MAX
Y	CL6BZ		9	SOIL	MERGED	0.58	1.1	0.84		1.64	16.537	1.1	EPC = MAX
Y	CO		9	SOIL	MERGED	1.33	8.87	5.451	1.287	1.64	5.608	5.608	EPC = UCL
Y	CR		9	SOIL	MERGED	6.65	29.2	15.968	3.9	1.64	16.441	16.441	EPC = UCL
Y	CU		9	SOIL	MERGED	0.793	966	20.791	83.452	1.64	32.749	32.749	EPC = UCL
Y	DNBP		9	SOIL	MERGED	0.082	10	0.66	2.263	1.64	27.688	10	EPC = MAX
N	DOAD	NT	9	SOIL	MERGED	5.1	5.1	5.1		0	5.1	5.1	EPC = MAX
N	ETOH	NT	9	SOIL	MERGED	0.007	0.012	0.01	0.003	2.92	0.015	0.012	EPC = MAX
N	FE	EN	9	SOIL	MERGED	1760	21600	12305.076	3111.44	1.64	12750.906	12750.906	EPC = UCL
Y	HG		9	SOIL	MERGED	0.027	0.361	0.053	0.048	1 64	0.035	0.035	EPC = UCL
Y	IMPA		9	SOIL	MERGED	15.5	15.5	15.5		1 64	0.829	0.829	EPC = UCL
N	K	EN	9	SOIL	MERGED	418	8650	4045.863	1459.188	1.64	4254.946	4254.946	EPC = UCL
Y	MEC6H5		9	SOIL	MERGED	0.001	1.1	0.094	0.317	1.64	0.381	0.381	EPC = UCL
N	MG	EN	9	SOIL	MERGED	1970	24400	13070.076	3243.529	1.64	13534.833	13534.833	EPC = UCL
N	MN		9	SOIL	MERGED	35.4	686	410.297	123.509	1.64	427.994	427.994	EPC = UCL
Y	MPA		9	SOIL	MERGED	0.923	3.61	2.267		1.64	1.052	1.052	EPC = UCL
N	NA	EN	9	SOIL	MERGED	360	4330	1377.553	905.02	1.64	1507.231	1507.231	EPC = UCL
Y	NI		9	SOIL	MERGED	1.98	26	15.321	4.024	1.64	15.898	15.898	EPC = UCL
N	OMCTSX	NT	9	SOIL	MERGED	0.008	0.054	0.034	0.017	2.1318	0.05	0.05	EPC = UCL
Y	PB		9	SOIL	MERGED	2.19	210	17.788	23.942	1.64	21.219	21.219	EPC = UCL
Y	PCB248		9	SOIL	MERGED	0.149	0.51	0.301	0.187	1.64	0.054	0.054	EPC = UCL
Y	PCB254		9	SOIL	MERGED	0.67	0.67	0.67		1.64	0.054	0.054	EPC = UCL
Y	SB		9	SOIL	MERGED	8 85	13.1	10.873	1.517	1 64	201530.546	13.1	EPC = MAX
Y	SE		9	SOIL	MERGED	0.247	0 262	0 255		1.64	0.129	0.129	EPC = UCL
N	TCLTFE	NT	9	SOIL	MERGED	*0.007*	*0.011*	*0.01*	*0.002*	2.1318	*0.012*	*0.011*	EPC = MAX
N	TCOS	NT	9	SOIL	MERGED	0 43	0.43	0 43		0	0.43	0.43	EPC = MAX
N	TL		9	SOIL	MERGED	4.43	33.3	20.005	9.777	1.64	14.83	14.83	EPC = UCL
Y	V		9	SOIL	MERGED	5.55	54.5	23.785	8.407	1.64	24.99	24.99	EPC = UCL
Y	ZN		9	SOIL	MERGED	6.96	366	57.25	30.644	1.64	61.641	61.641	EPC = UCL

Recalculated Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
N	17PTCE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	ACET		9	SOIL	MERGED	0	COC; No RBSL	--	4700	4.68085E-06	0.00
N	AL		9	SOIL	MERGED	0	Not a COC	--	77000	Not a COC	--
N	AS		9	SOIL	MERGED	0.36	Not a COC	--	23	Not a COC	--
Y	B2EHP		9	SOIL	MERGED	22	2.54545E-07	5.03	940	0.005957447	0.76
Y	BA		9	SOIL	MERGED	0	COC; No RBSL	--	5400	0.037124074	4.71
Y	BE		9	SOIL	MERGED	0.15	4.68667E-06	92 58	390	0.001802564	0 23
N	C16A	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C29	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		9	SOIL	MERGED	0	COC; No RBSL	--	14000	7.14286E-08	0.00
Y	CD		9	SOIL	MERGED	920	3 68478E-09	0.07	39	0.086923077	11.03
Y	CL6BZ		9	SOIL	MERGED		COC; No RBSL	--		COC; No RBSL	--
Y	CO		9	SOIL	MERGED	0	COC; No RBSL	--	460	0.012191304	1.55
Y	CR		9	SOIL	MERGED	140	1 17436E-07	2.32	390	0.04215641	5.35
Y	CU		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	DNBP		9	SOIL	MERGED	0	COC; No RBSL	--	4700	0.00212766	0.27
N	DOAD	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	ETOH	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		9	SOIL	MERGED	0	COC; No RBSL	--	23	0.001521739	0.19
Y	IMPA		9	SOIL	MERGED	0	COC; No RBSL	--	4700	0.000176383	0.02
N	K	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC6H5		9	SOIL	MERGED	0	COC; No RBSL	--	1000	0.000381	0.05
N	MG	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MN		9	SOIL	MERGED	0	Not a COC	--	390	Not a COC	--
Y	MPA		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	NA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		9	SOIL	MERGED	0	COC; No RBSL	--	1500	0.010598667	1.35
N	OMCTSX	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	PB		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB248		9	SOIL	MERGED	0	COC; No RBSL	--	0.94	0.057446809	7.29
Y	PCB254		9	SOIL	MERGED	0	COC; No RBSL	--	0.94	0.057446809	7.29
Y	SB		9	SOIL	MERGED	0	COC; No RBSL	--	31	0.422580645	53.65
Y	SE		9	SOIL	MERGED	0	COC; No RBSL	--	390	0 000330769	0 04
N	TCLTFE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TCOS	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TL		9	SOIL	MERGED	0	Not a COC	--	6.2	Not a COC	--
Y	V		9	SOIL	MERGED	0	COC; No RBSL	--	540	0.046277778	5.87
Y	ZN		9	SOIL	MERGED	0	COC; No RBSL	--	23000	0.002680043	0.34
							TOTAL RISK	5.06233E-06	100.00	HI 0.787728	100.00

Recalculated Risk for SWMU 9 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
N	17PTCE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	ACET		9	SOIL	MERGED	0	COC; No RBSL	--	30000	7.33333E-07	0.00
N	AL		9	SOIL	MERGED	0	Not a COC	--	10000000	Not a COC	--
N	AS		9	SOIL	MERGED	2.9	Not a COC	--	550	Not a COC	--
Y	B2EHP		9	SOIL	MERGED	60	9.33333E-08	12.40	6000	0.000933333	2.04
Y	BA		9	SOIL	MERGED	0	COC; No RBSL	--	130000	0.001542077	3.37
Y	BE		9	SOIL	MERGED	1.2	5.85833E-07	77.81	9200	7.6413E-05	0.17
N	C16A	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C29	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		9	SOIL	MERGED	0	COC; No RBSL	--	90000	1.11111E-08	0.00
Y	CD		9	SOIL	MERGED	1500	2.26E-09	0 30	920	0.003684783	8.06
Y	CL6BZ		9	SOIL	MERGED		COC; No RBSL	--		COC; No RBSL	--
Y	CO		9	SOIL	MERGED	0	COC; No RBSL	--	11000	0.000509818	1.12
Y	CR		9	SOIL	MERGED	230	7.14826E-08	9.49	920	0.017870652	39.10
Y	CU		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	DNBP		9	SOIL	MERGED	0	COC; No RBSL	--	30000	0.000333333	0.73
N	DOAD	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	ETOH	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		9	SOIL	MERGED	0	COC; No RBSL	--	550	6.36364E-05	0.14
Y	IMPA		9	SOIL	MERGED	0	COC; No RBSL	--	30000	2.76333E-05	0.06
N	K	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC6H5		9	SOIL	MERGED	0	COC; No RBSL	--	1600	0.000238125	0 52
N	MG	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MN		9	SOIL	MERGED	0	Not a COC	--	9200	Not a COC	--
Y	MPA		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	NA	EN	9	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		9	SOIL	MERGED	0	COC; No RBSL	--	37000	0.000429676	0.94
N	OMCTSX	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	PB		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB248		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PCB254		9	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	SB		9	SOIL	MERGED	0	COC; No RBSL	--	730	0.017945205	39 26
Y	SE		9	SOIL	MERGED	0	COC; No RBSL	--	9200	1.40217E-05	0 03
N	TCLTFE	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TCOS	NT	9	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TL		9	SOIL	MERGED	0	Not a COC	--	150	Not a COC	--
Y	V		9	SOIL	MERGED	0	COC; No RBSL	--	13000	0.001922308	4.21
Y	ZN		9	SOIL	MERGED	0	COC; No RBSL	--	550000	0.000112075	0.25
							TOTAL RISK 7.5E-07	100.00		HI 0.045704	100.00

Recalculated Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	13DNB		30	SOIL	MERGED	21	1	1	5	5	0.251	0.013
Y	2MNAP		30	SOIL	MERGED	21	1	1	5	5	23.338	5.325
N	2TMPD	NT	30	SOIL	MERGED	3	3	3	100	100	0.697	0.101
Y	AG		30	SOIL	MERGED	21	3	2	14	10	0.355	0.215
N	AL		30	SOIL	MERGED	21	21	0	100	0	15816.19	3285.347
Y	AS		30	SOIL	MERGED	21	21	2	100	10	41.853	117.195
Y	BA		30	SOIL	MERGED	21	21	0	100	0	178.333	42.67
N	BE		30	SOIL	MERGED	21	17	0	81	0	0.676	0.272
N	C12	NT	30	SOIL	MERGED	1	1	1	100	100	50	
N	C13	NT	30	SOIL	MERGED	3	3	3	100	100	20.28	34.399
N	C14	NT	30	SOIL	MERGED	3	3	3	100	100	33.613	57.493
N	C16	NT	30	SOIL	MERGED	3	3	3	100	100	0.63	0.266
N	C17	NT	30	SOIL	MERGED	3	3	3	100	100	0.81	0.435
N	C18	NT	30	SOIL	MERGED	2	2	2	100	100	0.545	0.276
N	C25	NT	30	SOIL	MERGED	1	1	1	100	100	0.44	
N	C27	NT	30	SOIL	MERGED	3	3	3	100	100	0.877	0.497
N	CA	EN	30	SOIL	MERGED	21	21	0	100	0	103333.333	12646.475
Y	CCL3F		30	SOIL	MERGED	20	2	2	10	10	0.001	0.002
Y	CD		30	SOIL	MERGED	21	13	12	62	57	1.651	2.506
Y	CH2CL2		30	SOIL	MERGED	20	3	3	15	15	2.552	1.095
N	CHOLA	NT	30	SOIL	MERGED	1	1	1	100	100	1.2	
Y	CO		30	SOIL	MERGED	21	21	1	100	5	6.264	1.649
Y	CR		30	SOIL	MERGED	21	21	1	100	5	24.533	19.009
Y	CU		30	SOIL	MERGED	21	21	5	100	24	49.567	83.559
N	DH2MN	NT	30	SOIL	MERGED	1	1	1	100	100	20	
Y	DNBP		30	SOIL	MERGED	21	10	10	48	48	16.131	15.443
N	DOAD	NT	30	SOIL	MERGED	4	4	4	100	100	0.5	0.124
N	FE	EN	30	SOIL	MERGED	21	21	2	100	10	17623.81	7504.259
Y	HG		30	SOIL	MERGED	21	2	0	10	0	0.016	0.009
N	K	EN	30	SOIL	MERGED	21	21	6	100	29	6998.095	1402.336
Y	MEC6H5		30	SOIL	MERGED	20	2	2	10	10	0.351	0.12
N	MG	EN	30	SOIL	MERGED	21	21	21	100	100	24185.714	5823.855
N	MN		30	SOIL	MERGED	21	21	0	100	0	484.048	86.29
N	NA	EN	30	SOIL	MERGED	21	21	3	100	14	4894.286	5330.152
Y	NAP		30	SOIL	MERGED	21	1	1	5	5	17.622	4.022
Y	NI		30	SOIL	MERGED	21	21	3	100	14	22.529	6.889
Y	PB		30	SOIL	MERGED	21	21	4	100	19	77.317	181.09
Y	PETN		30	SOIL	MERGED	21	12	12	57	57	1.525	1.353
Y	PHANTR		30	SOIL	MERGED	21	1	1	5	5	15.716	3.591
Y	PYR		30	SOIL	MERGED	21	1	1	5	5	15.717	3.587
N	SB		30	SOIL	MERGED	21	1	0	5	0	3.91	1.556
Y	SE		30	SOIL	MERGED	21	1	1	5	5	0.144	0.086
N	TCLTFE	NT	30	SOIL	MERGED	11	11	11	100	100	0.008	0.002
N	TL		30	SOIL	MERGED	21	14	0	67	0	12.72	13.529
Y	V		30	SOIL	MERGED	21	21	0	100	0	27.524	5.694
Y	ZN		30	SOIL	MERGED	21	21	4	100	19	182.6	192.865

Recalculated Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	13DNB		30	SOIL	MERGED	0.309	0.309	0.309		1.7247	0.256	0.256	EPC = UCL
Y	2MNAP		30	SOIL	MERGED	0.1	0.1	0.1		1.7247	25.342	0.1	EPC = MAX
N	2TMPD	NT	30	SOIL	MERGED	0.59	0.79	0.697	0.101	2.92	0.867	0.79	EPC = MAX
Y	AG		30	SOIL	MERGED	0.385	1.27	0.717	0.482	1.7247	0.436	0.436	EPC = UCL
N	AL		30	SOIL	MERGED	9640	22100	15816.19	3285.347	1.7247	17052.664	17052.664	EPC = UCL
Y	AS		30	SOIL	MERGED	6.13	540	41.853	117.195	1.7247	85.961	85.961	EPC = UCL
Y	BA		30	SOIL	MERGED	129	287	178.333	42.67	1.7247	194.392	194.392	EPC = UCL
N	BE		30	SOIL	MERGED	0.492	1.17	0.776	0.191	1.7247	0.778	0.778	EPC = UCL
N	C12	NT	30	SOIL	MERGED	50	50	50		0	50	50	EPC = MAX
N	C13	NT	30	SOIL	MERGED	0.4	60	20.28	34.399	2.92	78.272	60	EPC = MAX
N	C14	NT	30	SOIL	MERGED	0.4	100	33.613	57.493	2.92	130.538	100	EPC = MAX
N	C16	NT	30	SOIL	MERGED	0.35	0.88	0.63	0.266	2.92	1.078	0.88	EPC = MAX
N	C17	NT	30	SOIL	MERGED	0.47	1.3	0.81	0.435	2.92	1.543	1.3	EPC = MAX
N	C18	NT	30	SOIL	MERGED	0.35	0.74	0.545		6.3138	1.777	0.74	EPC = MAX
N	C25	NT	30	SOIL	MERGED	0.44	0.44	0.44		0	0.44	0.44	EPC = MAX
N	C27	NT	30	SOIL	MERGED	0.33	1.3	0.877	0.497	2.92	1.715	1.3	EPC = MAX
N	CA	EN	30	SOIL	MERGED	84000	130000	103333.333	12646.475	1.7247	108092.965	108092.965	EPC = UCL
Y	CCL3F		30	SOIL	MERGED	0.007	0.009	0.008		1.7291	0.002	0.002	EPC = UCL
Y	CD		30	SOIL	MERGED	0.917	10.1	2.451	2.939	1.7247	2.594	2.594	EPC = UCL
Y	CH2CL2		30	SOIL	MERGED	0.008	0.015	0.01	0.004	1.7291	2.975	0.015	EPC = MAX
N	CHOLA	NT	30	SOIL	MERGED	1.2	1.2	1.2		0	1.2	1.2	EPC = MAX
Y	CO		30	SOIL	MERGED	3.68	11	6.264	1.649	1.7247	6.885	6.885	EPC = UCL
Y	CR		30	SOIL	MERGED	12.3	104	24.533	19.009	1.7247	31.687	31.687	EPC = UCL
Y	CU		30	SOIL	MERGED	9.7	356	49.567	83.559	1.7247	81.015	81.015	EPC = UCL
N	DH2MN	NT	30	SOIL	MERGED	20	20	20		0	20	20	EPC = MAX
Y	DNBP		30	SOIL	MERGED	0.095	0.69	0.325	0.198	1.7247	21.943	0.69	EPC = MAX
N	DOAD	NT	30	SOIL	MERGED	0.38	0.67	0.5	0.124	2.3534	0.646	0.646	EPC = UCL
N	FE	EN	30	SOIL	MERGED	10100	40000	17623.81	7504.259	1.7247	20448.116	20448.116	EPC = UCL
Y	HG		30	SOIL	MERGED	0.04	0.043	0.042		1.7247	0.019	0.019	EPC = UCL
N	K	EN	30	SOIL	MERGED	3710	8860	6998.095	1402.336	1.7247	7525.879	7525.879	EPC = UCL
Y	MEC8H5		30	SOIL	MERGED	0.001	0.002	0.002		1.7291	0.397	0.002	EPC = MAX
N	MG	EN	30	SOIL	MERGED	16900	39100	24185.714	5823.855	1.7247	26377.582	26377.582	EPC = UCL
N	MN		30	SOIL	MERGED	303	657	484.048	86.29	1.7247	516.524	516.524	EPC = UCL
N	NA	EN	30	SOIL	MERGED	1060	20400	4894.286	5330.152	1.7247	6900.344	6900.344	EPC = UCL
Y	NAP		30	SOIL	MERGED	0.07	0.07	0.07		1.7247	19.136	0.07	EPC = MAX
Y	NI		30	SOIL	MERGED	11.5	41.5	22.529	6.889	1.7247	25.122	25.122	EPC = UCL
Y	PB		30	SOIL	MERGED	9.65	850	77.317	181.09	1.7247	145.472	145.472	EPC = UCL
Y	PETN		30	SOIL	MERGED	2.59	2.74	2.668	0.041	1.7247	2.034	2.034	EPC = UCL
Y	PHANTR		30	SOIL	MERGED	0.046	0.046	0.046		1.7247	17.068	0.046	EPC = MAX
Y	PYR		30	SOIL	MERGED	0.061	0.061	0.061		1.7247	17.067	0.061	EPC = MAX
N	SB		30	SOIL	MERGED	10.7	10.7	10.7		1.7247	4.496	4.496	EPC = UCL
Y	SE		30	SOIL	MERGED	0.517	0.517	0.517		1.7247	0.176	0.176	EPC = UCL
N	TCLTFE	NT	30	SOIL	MERGED	0.005	0.012	0.008	0.002	1.8125	0.009	0.009	EPC = UCL
N	TL		30	SOIL	MERGED	5.67	47.7	18.252	13.517	1.7247	17.812	17.812	EPC = UCL
Y	V		30	SOIL	MERGED	19.7	39.3	27.524	5.694	1.7247	29.667	29.667	EPC = UCL
Y	ZN		30	SOIL	MERGED	42.3	669	182.6	192.865	1.7247	255.187	255.187	EPC = UCL

Recalculated Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
Y	13DNB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	2MNAP		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2TMPD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	AG		30	SOIL	MERGED	0	COC; No RBSL	--	390	0.001117949	0.03
N	AL		30	SOIL	MERGED	0	Not a COC	--	77000	Not a COC	--
Y	AS		30	SOIL	MERGED	0 36	0.000238781	99.90	23	3.737434783	92.92
Y	BA		30	SOIL	MERGED	0	COC; No RBSL	--	5400	0.035998519	0.90
N	BE		30	SOIL	MERGED	0 15	Not a COC	--	390	Not a COC	--
N	C12	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C13	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C14	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C16	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C17	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C18	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C25	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CCL3F		30	SOIL	MERGED	0	COC; No RBSL	--	14000	1.42857E-07	0.00
Y	CD		30	SOIL	MERGED	920	2.81957E-09	0.00	39	0.066512821	1.65
Y	CH2CL2		30	SOIL	MERGED	6	2.5E-09	0.00	2800	5.35714E-06	0.00
N	CHOLA	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	CO		30	SOIL	MERGED	0	COC; No RBSL	--	460	0.014967391	0.37
Y	CR		30	SOIL	MERGED	140	2.26336E-07	0.09	390	0.081248718	2.02
Y	CU		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	DH2MN	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	DNBP		30	SOIL	MERGED	0	COC; No RBSL	--	4700	0.000146809	0.00
N	DOAD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		30	SOIL	MERGED	0	COC; No RBSL	--	23	0.000826087	0.02
N	K	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	MEC6H5		30	SOIL	MERGED	0	COC; No RBSL	--	1000	0.000002	0.00
N	MG	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MN		30	SOIL	MERGED	0	Not a COC	--	390	Not a COC	--
N	NA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NAP		30	SOIL	MERGED	0	COC; No RBSL	--	140	0.0005	0.01
Y	NI		30	SOIL	MERGED	0	COC; No RBSL	--	1500	0.016748	0.42
Y	PB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		30	SOIL	MERGED		COC; No RBSL	--		COC; No RBSL	--
Y	PHANTR		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PYR		30	SOIL	MERGED	0	COC; No RBSL	--	1400	4.35714E-05	0.00
N	SB		30	SOIL	MERGED	0	Not a COC	--	31	Not a COC	--
Y	SE		30	SOIL	MERGED	0	COC; No RBSL	--	390	0.000451282	0.01
N	TCLTFE	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TL		30	SOIL	MERGED	0	Not a COC	--	6.2	Not a COC	--
Y	V		30	SOIL	MERGED	0	COC; No RBSL	--	540	0.054938889	1 37
Y	ZN		30	SOIL	MERGED	0	COC; No RBSL	--	23000	0.011095087	0.28
						TOTAL RISK	2.4E-04	100.00		HI 4.022037	100.00

Recalculated Risk for SWMU 30 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
Y	13DNB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	2MNAP		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	2TMPD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	AG		30	SOIL	MERGED	0	COC; No RBSL	--	9200	4.73913E-05	0.02
N	AL		30	SOIL	MERGED	0	Not a COC	--	10000000	Not a COC	--
Y	AS		30	SOIL	MERGED	2.9	2.96417E-05	99.53	550	0 156292727	78.38
Y	BA		30	SOIL	MERGED	0	COC; No RBSL	--	130000	0.001495323	0.75
N	BE		30	SOIL	MERGED	1.2	Not a COC	--	9200	Not a COC	--
N	C12	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C13	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C14	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C16	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C17	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C18	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C25	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	C27	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	CA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	CCL3F		30	SOIL	MERGED	0	COC; No RBSL	--	90000	2.22222E-08	0.00
Y	CD		30	SOIL	MERGED	1500	1.72933E-09	0 01	920	0.002819565	1.41
Y	CH2CL2		30	SOIL	MERGED	11	1.36364E-09	0.00	18000	8.33333E-07	0.00
N	CHOLA	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	CO		30	SOIL	MERGED	0	COC; No RBSL	--	11000	0.000625909	0.31
Y	CR		30	SOIL	MERGED	230	1.3777E-07	0.46	920	0.034442391	17.27
Y	CU		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
N	DH2MN	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
Y	DNBP		30	SOIL	MERGED	0	COC; No RBSL	--	30000	0.000023	0.01
N	DOAD	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	HG		30	SOIL	MERGED	0	COC; No RBSL	--	550	3.45455E-05	0.02
N	K	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	MEC6H5		30	SOIL	MERGED	0	COC; No RBSL	--	1600	0.00000125	0.00
N	MG	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
N	MN		30	SOIL	MERGED	0	Not a COC	--	9200	Not a COC	--
N	NA	EN	30	SOIL	MERGED	EN	EN	EN	EN	EN	NE
Y	NAP		30	SOIL	MERGED	0	COC; No RBSL	--	430	0.000162791	0.08
Y	NI		30	SOIL	MERGED	0	COC; No RBSL	--	37000	0.000678973	0.34
Y	PB		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PETN		30	SOIL	MERGED		COC, No RBSL	--		COC; No RBSL	--
Y	PHANTR		30	SOIL	MERGED	0	COC; No RBSL	--	0	COC; No RBSL	--
Y	PYR		30	SOIL	MERGED	0	COC; No RBSL	--	9000	6.77778E-06	0.00
N	SB		30	SOIL	MERGED	0	Not a COC	--	730	Not a COC	--
Y	SE		30	SOIL	MERGED	0	COC; No RBSL	--	9200	1.91304E-05	0.01
N	TCLTFE	NT	30	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	TL		30	SOIL	MERGED	0	Not a COC	--	150	Not a COC	--
Y	V		30	SOIL	MERGED	0	COC; No RBSL	--	13000	0.002282077	1.14
Y	ZN		30	SOIL	MERGED	0	COC; No RBSL	--	550000	0.000463976	0.23
						TOTAL RISK	3.0E-05	100 00		HI 0.199397	100.00

Recalculated Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Number of Samples	Number of Detections	Hits > Bkgd.	Percent Detections	Percent Detections > Bkgd.	Arithmetic Mean	Standard Deviation
Y	246TNT		31	SOIL	MERGED	14	2	2	14	14	0 301	0.204
N	AL		31	SOIL	MERGED	16	16	0	100	0	14368.75	2046.694
N	AS		31	SOIL	MERGED	16	16	0	100	0	11 471	4.485
Y	BA		31	SOIL	MERGED	16	16	0	100	0	120.938	71.505
N	BE		31	SOIL	MERGED	16	16	0	100	0	0 878	0.233
N	CA	EN	31	SOIL	MERGED	16	16	0	100	0	110006.25	37902 691
Y	CD		31	SOIL	MERGED	16	14	10	88	63	1 045	0.49
Y	CH2CL2		31	SOIL	MERGED	4	1	1	25	25	2.252	1.497
Y	CO		31	SOIL	MERGED	16	16	0	100	0	6.283	0.756
Y	CR		31	SOIL	MERGED	16	16	0	100	0	19.616	2 737
Y	CU		31	SOIL	MERGED	16	16	4	100	25	24.366	18.642
Y	DNBP		31	SOIL	MERGED	4	1	1	25	25	22.96	15.08
N	DOAD	NT	31	SOIL	MERGED	2	2	2	100	100	0.885	0.445
N	FE	EN	31	SOIL	MERGED	16	16	0	100	0	15150	2030.435
Y	HG		31	SOIL	MERGED	16	4	1	25	6	0.034	0.048
N	K	EN	31	SOIL	MERGED	16	16	0	100	0	3858.125	917.564
N	MG	EN	31	SOIL	MERGED	16	16	11	100	69	22153.125	9784.366
N	MN		31	SOIL	MERGED	16	16	1	100	6	358.625	150.548
N	NA	EN	31	SOIL	MERGED	16	16	0	100	0	1798	716.531
Y	NI		31	SOIL	MERGED	16	16	3	100	19	23.491	4.147
Y	PB		31	SOIL	MERGED	16	16	0	100	0	15.242	4.739
N	SB		31	SOIL	MERGED	16	2	1	13	6	4.536	2.671
N	TL		31	SOIL	MERGED	16	15	0	94	0	17.377	8.913
Y	V		31	SOIL	MERGED	16	16	0	100	0	24.128	3.954
Y	ZN		31	SOIL	MERGED	16	16	1	100	6	85.531	24.288

Recalculated Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Minimum Detected Concentration (ug/g)	Maximum Detected Concentration (ug/g)	Arithmetic Mean of Detections	Std. Dev. of Detections	t	95% UCL	Exposure Point Concentration (ug/g)	Comment
Y	246TNT		31	SOIL	MERGED	0.52	0.958	0 739		1.7709	0.398	0.398	EPC = UCL
N	AL		31	SOIL	MERGED	10100	18100	14368 75	2046.694	1.753	15265.714	15265.714	EPC = UCL
N	AS		31	SOIL	MERGED	3.79	20	11.471	4 485	1.753	13.437	13.437	EPC = UCL
Y	BA		31	SOIL	MERGED	39.2	233.5	120.938	71.505	1.753	152.275	152.275	EPC = UCL
N	BE		31	SOIL	MERGED	0 429	1.15	0.878	0.233	1.753	0.98	0.98	EPC = UCL
N	CA	EN	31	SOIL	MERGED	56100	230000	110006.25	37902 691	1.753	126617.104	126617.104	EPC = UCL
Y	CD		31	SOIL	MERGED	0.617	2.365	1.144	0.438	1.753	1.26	1.26	EPC = UCL
Y	CH2CL2		31	SOIL	MERGED	0.007	0.007	0.007		2.3534	4.014	0.007	EPC = MAX
Y	CO		31	SOIL	MERGED	4.32	7.45	6.283	0.756	1.753	6.614	6.614	EPC = UCL
Y	CR		31	SOIL	MERGED	15.9	24 7	19.616	2.737	1.753	20.815	20.815	EPC = UCL
Y	CU		31	SOIL	MERGED	9.9	76.15	24.366	18.642	1.753	32 536	32.536	EPC = UCL
Y	DNBP		31	SOIL	MERGED	0.34	0.34	0 34		2.3534	40.705	0.34	EPC = MAX
N	DOAD	NT	31	SOIL	MERGED	0.57	1.2	0.885		6.3138	2.872	1.2	EPC = MAX
N	FE	EN	31	SOIL	MERGED	10500	18300	15150	2030.435	1.753	16039.838	16039.838	EPC = UCL
Y	HG		31	SOIL	MERGED	0.036	0.195	0.095	0.069	1.753	0.055	0.055	EPC = UCL
N	K	EN	31	SOIL	MERGED	2090	5510	3858.125	917.564	1.753	4260.247	4260.247	EPC = UCL
N	MG	EN	31	SOIL	MERGED	11200	46400	22153.125	9784.366	1.753	26441.123	26441.123	EPC = UCL
N	MN		31	SOIL	MERGED	138	678	358.625	150.548	1.753	424.603	424.603	EPC = UCL
N	NA	EN	31	SOIL	MERGED	659	2960	1798	716.531	1.753	2112.02	2112.02	EPC = UCL
Y	NI		31	SOIL	MERGED	16.9	32.2	23.491	4.147	1.753	25.308	25.308	EPC = UCL
Y	PB		31	SOIL	MERGED	9.47	24	15.242	4.739	1.753	17.319	17.319	EPC = UCL
N	SB		31	SOIL	MERGED	10.2	12.4	11.3		1.753	5.707	5.707	EPC = UCL
N	TL		31	SOIL	MERGED	6.78	31.7	18.425	8.142	1.753	21.283	21.283	EPC = UCL
Y	V		31	SOIL	MERGED	16.5	31	24.128	3.954	1.753	25.861	25.861	EPC = UCL
Y	ZN		31	SOIL	MERGED	52.1	166	85.531	24.288	1.753	96.175	96.175	EPC = UCL

Recalculated Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Residential Soil Carcinogenic RBSL	Residential Carcinogenic Risk	Percent of Risk	Residential Soil Noncarcinogenic RBSL	Residential Noncarcinogenic HQ	Percent of HI
Y	246TNT		31	SOIL	MERGED	10	3.98E-08	20 84	24	0 016583333	7.67
N	AL		31	SOIL	MERGED	0	Not a COC	- -	77000	Not a COC	- -
N	AS		31	SOIL	MERGED	0.36	Not a COC	- -	23	Not a COC	- -
Y	BA		31	SOIL	MERGED	0	COC; No RBSL	- -	5400	0.028199074	13.04
N	BE		31	SOIL	MERGED	0 15	Not a COC	- -	390	Not a COC	- -
N	CA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CD		31	SOIL	MERGED	920	1.36957E-09	0.72	39	0.032307692	14.94
Y	CH2CL2		31	SOIL	MERGED	6	1 16667E-09	0.61	2800	0.0000025	0 00
Y	CO		31	SOIL	MERGED	0	COC; No RBSL	- -	460	0.014378261	6.65
Y	CR		31	SOIL	MERGED	140	1 48679E-07	77.84	390	0.053371795	24.68
Y	CU		31	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	DNBP		31	SOIL	MERGED	0	COC; No RBSL	- -	4700	7.23404E-05	0.03
N	DOAD	NT	31	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		31	SOIL	MERGED	0	COC; No RBSL	- -	23	0.002391304	1.11
N	K	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MG	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MN		31	SOIL	MERGED	0	Not a COC	- -	390	Not a COC	- -
N	NA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		31	SOIL	MERGED	0	COC; No RBSL	- -	1500	0.016872	7.80
Y	PB		31	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	SB		31	SOIL	MERGED	0	Not a COC	- -	31	Not a COC	- -
N	TL		31	SOIL	MERGED	0	Not a COC	- -	6.2	Not a COC	- -
Y	V		31	SOIL	MERGED	0	COC; No RBSL	- -	540	0.047890741	22.15
Y	ZN		31	SOIL	MERGED	0	COC; No RBSL	- -	23000	0.004181522	1.93
						TOTAL RISK	1.9E-07	100.00		HI 0.216251	100.00

Recalculated Risk for SWMU 31 Soil
Deseret Chemical Depot

COC	TESTNAME	Essential nutrient/ TIC/Nontarget	SWMU	Medium	Layer	Industrial Soil Carcinogenic RBSL	Industrial Carcinogenic Risk	Percent of Risk	Industrial Soil Noncarcinogenic RBSL	Industrial Noncarcinogenic HQ	Percent of HI
Y	246TNT		31	SOIL	MERGED	28	1 42143E-08	13.39	150	0.002653333	8.46
N	AL		31	SOIL	MERGED	0	Not a COC	- -	10000000	Not a COC	- -
N	AS		31	SOIL	MERGED	2.9	Not a COC	- -	550	Not a COC	- -
Y	BA		31	SOIL	MERGED	0	COC; No RBSL	- -	130000	0.001171346	3.73
N	BE		31	SOIL	MERGED	1.2	Not a COC	- -	9200	Not a COC	- -
N	CA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	CD		31	SOIL	MERGED	1500	8.4E-10	0.79	920	0.001369565	4.36
Y	CH2CL2		31	SOIL	MERGED	11	6.36364E-10	0 60	18000	3.88889E-07	0.00
Y	CO		31	SOIL	MERGED	0	COC, No RBSL	- -	11000	0.000601273	1.92
Y	CR		31	SOIL	MERGED	230	9.05E-08	85.22	920	0.022625	72.10
Y	CU		31	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
Y	DNBP		31	SOIL	MERGED	0	COC; No RBSL	- -	30000	1.13333E-05	0.04
N	DOAD	NT	31	SOIL	MERGED	NT	NT	NT	NT	NT	NT
N	FE	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	HG		31	SOIL	MERGED	0	COC; No RBSL	- -	550	0 0001	0.32
N	K	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MG	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
N	MN		31	SOIL	MERGED	0	Not a COC	- -	9200	Not a COC	- -
N	NA	EN	31	SOIL	MERGED	EN	EN	EN	EN	EN	EN
Y	NI		31	SOIL	MERGED	0	COC; No RBSL	- -	37000	0.000684	2.18
Y	PB		31	SOIL	MERGED	0	COC; No RBSL	- -	0	COC; No RBSL	- -
N	SB		31	SOIL	MERGED	0	Not a COC	- -	730	Not a COC	- -
N	TL		31	SOIL	MERGED	0	Not a COC	- -	150	Not a COC	- -
Y	V		31	SOIL	MERGED	0	COC; No RBSL	- -	13000	0.001989308	6.34
Y	ZN		31	SOIL	MERGED	0	COC; No RBSL	- -	550000	0.000174864	0.56
						TOTAL RISK	1.1E-07	100.00		HI 0.031380	100.00

Attachment 7

"Preliminary" Ecological Risk Assessment Calculations

Table 7-1 Summary of Screening Ecological Risk Assessment Results for Deseret Chemical Depot

SWMU	Chemical	K_{ow}>3.0[a]	Ess. Nutr.	HQ>1		No TRV (organics & inorganics greater than background)		Detec. Freq.
				mouse	lark	mouse	lark	
3	CYN					X	X	7
3	DNBP	X				X	X	7
3	FANT	X				X	X	7
3	PB			X	X			100
3	PCB254	X				X	X	7
3	PCB260	X				X	X	3
3	PYR	X				X	X	7
3	ZN		X	X*	X*			100
5	2MNAP	X				X	X	10
5	AG					X	X	9
5	CD			X	X			79
5	CR			X	X			100
5	CU			X				100
5	CYN					X	X	3
5	DBZFUR	X				X	X	5
5	DEP					X	X	5
5	DNBP	X				X	X	10
5	MEC6H5						X	10
5	NAP	X				X	X	15
5	PB			X	X			100
5	PCB260	X				X	X	2
5	PHANTR	X				X	X	10
5	ZN		X	X*	X*			100
8	24DNT					X	X	5
8	AG					X	X	27
8	C6H6					X	X	9
8	CCL3F					X	X	18
8	CD			X	X			82
8	CR				X			100
8	CU			X	X			100
8	HMX					X	X	9
8	MG		X					100
8	PB			X	X			100
8	PHANTR	X				X	X	9
8	ZN		X	X*	X*			100
9	ACET						X	3
9	B2EHP	X					X	3
9	CCL3F					X	X	5
9	CD			X	X			53
9	CU			X				100
9	CL6BZ					X	X	5
9	DNBP	X				X	X	29
9	IMPA					X	X	3
9	MPA					X	X	5
9	PCB248	X				X	X	4

Table 7-1 Summary of Screening Ecological Risk Assessment **Results for** Deseret Chemical Depot

SWMU	Chemical	K_{ow}>3.0[a]	Ess. Nutr.	HQ>1		No TRV (organics & inorganics greater than background)		Detec. Freq.
				mouse	lark	mouse	lark	
9	PCB254	X				X	X	1
9	SB			X			X	8
30	AG					X	X	22
30	CCL3F					X	X	22
30	CH2CL2						X	33
30	DNBP	X				X	X	22
30	MEC6H5						X	11
30	NA		X					100
30	PB			X	X			100
30	PETN					X	X	67
30	SE			X				11
31	246TNT					X	X	40
31	CD			X				100
31	CH2CL2						X	50
31	CU			X				100
31	MG		X			X*	X*	100

[a] K_{ow} greater than 3 was used to screen for bioaccumulation potential. Mercury is also a known bioaccumulator.

X* = essential nutrient. Not considered likely to cause potential adverse effects.

Table 7-2 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 3, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
AL	21400	14898	25200	0	209,244	145,673	246,400	2.22	94,341	65,679	111,093	no incr.risk	no incr.risk
AS	500	256	4820	0	4,889	2,499	47,129	0.145	33,763	17,257	325476	no incr.risk	no incr.risk
BA	526	354	537	0	5,143	3,458	5,251	4.205	1,223	822	1249	no incr.risk	no incr.risk
BE	1.22	0.793	1	1	11.9	7.76	11.8	1.4	9	6	8	no incr.risk	no incr.risk
CA	180000	123863	250000	0	1,760,000	1,211,108	2,444,444	nav	nav	nav	nav	nav	nav
CD	2.00	0.898	1	2	19.6	8.78	9.60	2	10	4	5	5	no incr.risk
CO	8.89	6.31	9	1	86.9	61.7	84.0	nav	nav	nav	nav	nav	nav
CR	117	23.6	49	1	1,144	231	474	2.8	410	83	170	240	no incr.risk
CU	61.2	29.1	28	1	598	285	270	32.3	19	9	8	10	no incr.risk
CYN	1.73	0.702	0	1	16.9	6.87	nap	nav	nav	nav	nav	nap	nap
DNBP	10.0	31.7	0	1	97.8	98	nap	nav	nav	nav	nav	nap	nap
FANT	0.120	35.9	0	1	1.17	1	nap	nav	nav	nav	nav	nap	nap
FE	30800	17808	24300	1	301,156	174,120	237,600	483	624	361	492	132	no incr.risk
HG	2.80	1.28	22	0	27.4	12.5	216.09	3	10	5	78	no incr.risk	no incr.risk
K	10100	6041	7940	2	98,756	59,069	77,636	nav	nav	nav	nav	nav	nav
MG	23500	15879	16150	5	229,778	155,262	157,911	nav	nav	nav	nav	nav	nav
MN	737	586	658	2	7,206	5,732	6,434	187	39	31	34	4	no incr.risk
NA	2310	1320	5610	0	22,587	12,911	54,853	nav	nav	nav	nav	nav	nav
NI	27.4	18.5	28	0	268	181	273	85	3	2	3	no incr.risk	no incr.risk
PB	170	65.2	35	6	1,662	637	342	17	98	38	20	78	17
PCB254	0.331	0.1	0	2	3.24	1	nap	nav	nav	nav	nav	nap	nap
PCB260	0.193	0.1	0	1	1.89	1	nap	nav	nav	nav	nav	nap	nap
PYR	0.0830	17.4	0	1	0.812	1	nap	nav	nav	nav	nav	nap	nap
SB	15.3	6.47	12	1	150	63.3	116	0.144	1,041	441	810	231	no incr.risk
TL	54.9	39.4	50	1	537	385	488	0.016	33,798	24,261	30720	3,078	no incr.risk
V	35.3	26.4	63	0	345	258	612	0.41	834	624	1478	no incr.risk	no incr.risk
ZN	820	258	144	2	8,018	2,519	1,408	340	24	7	4	19	3

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.176 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = $[0.0306 \times (\text{body wt., kg})^{0.564}]$/ body wt., kg, (Eq. 15, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt. (0.018 kg, low end of range (18 - 45g) from Burt and Grossenheider 1976).

[b] Screening-level Values (mg/kg-body wt./day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al. 1996, mink = 1kg, EPA 1993) to the deer mouse (0.018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt.}_t / \text{body wt.}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq. 4, Sample et al. 1996). The $NOAEL_t$ values from Sample et al 1996.

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc.)/ screening-level ecotoxicity value.

NOAEL = no observed adverse effects level

Table 7-3 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 3, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
AL	21400	14898	25200	0	18,085	12,643	21,385	110	165	115	195	no incr.risk	no incr.risk
AS	500	256	4820	0	423	217	4,090.2	2.5	172	88	1663	no incr.risk	no incr.risk
BA	526	354	537	0	445	300	456	20.8	21	14	22	no incr.risk	no incr.risk
BE	1.22	0.793	1.21	1	1.031	0.673	1.03	nav	nav	nav	nav	nav	nav
CA	180000	123863	250000	0	152,113	105,109	212,148	nav	nav	nav	nav	nav	nav
CD	2.00	0.898	0.982	2	1.690	0.762	0.833	1.45	1	<1	<1	no incr.risk	no incr.risk
CO	8.89	6.31	8.59	1	7.51	5.35	7.29	nav	nav	nav	nav	nav	nav
CR	117	23.6	48.5	1	98.9	20.1	41.2	1	99	20	41	58	no incr.risk
CU	61.2	29.1	27.6	1	51.7	24.7	23.4	47	1	<1	<1	no incr.risk	no incr.risk
CYN	1.73	0.702	0	1	1.462	0.596	nap	nav	nav	nav	nav	nap	nap
DNBP	10.0	31.7	0	1	8.5	8.5	nap	nav	nav	nav	nav	nap	nap
FANT	0.120	35.9	0	1	0.1	0.1	nap	nav	nav	nav	nav	nap	nap
FE	30800	17808	24300	1	26,028	15,111	20,621	nav	nav	nav	nav	nav	nav
HG	2.80	1.28	22	0	2.37	1.08	18.754	0.5	5	2	42	no incr.risk	no incr.risk
K	10100	6041	7940	2	8.535	5,126	6,738	nav	nav	nav	nav	nav	nav
MG	23500	15879	16150	5	19,859	13,475	13,705	nav	nav	nav	nav	nav	nav
MN	737	586	658	2	623	497	558	977	<1	<1	<1	no incr.risk	no incr.risk
NA	2310	1320	5610	0	1,952	1,120	4,761	nav	nav	nav	nav	nav	nav
NI	27.4	18.5	27.9	0	23.2	15.7	23.7	77.4	<1	<1	<1	no incr.risk	no incr.risk
PB	170	65.2	35.0	6	143.7	55.3	29.7	1.13	127	49	26	101	23
PCB254	0.331	0.1	0	2	0.3	0.1	nap	nav	nav	nav	nav	nap	nap
PCB260	0.193	0.1	0	1	0.2	0.1	nap	nav	nav	nav	nav	nap	nap
PYR	0.0830	17.4	0	1	0.1	0.1	nap	nav	nav	nav	nav	nap	nap
SB	15.3	6.47	11.9	1	12.93	5.49	10.1	nav	nav	nav	nav	nav	nav
TL	54.9	39.4	49.9	1	46.4	33.4	42.3	nav	nav	nav	nav	nav	nav
V	35.3	26.4	62.6	0	29.8	22.4	53.1	11.40	3	2	5	no incr.risk	no incr.risk
ZN	820	258	144	2	693	219	122	14.5	48	15	8	39	7

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.0241 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = [0.0141 x (body wt. kg)$^{0.85}$]/body wt, kg, (Eq. 19, Sample et al. 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt (0.0284 kg, arith. mean of 44 individuals collected at DPG in 1995).

[b] Screening-level Values (mg/kg-body wt./day) = $NOAEL_w$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq. 6, Sample et al. 1996)

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value.

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc.)/ screening-level ecotoxicity value.

All body weights used in risk calculations were borrowed from study summaries in Sample et al. 1996.

NOAEL = no observed adverse effects level

Table 7-4 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 5, Deseret Chemical Depot

						Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd		Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
2MNAP	0.480	24.9	0	2	0.48	4.69	4.69	nap	nav	nav	nav	nav	nap	nap
AG	78.0	6.95	0.435	3	7	763	68.0	4.2533	nav	nav	nav	nav	nav	nav
AL	24300	12093	25200	0	12093	237,600	118,240	246,400	2.22	107,125	53,310	111,093	no incr.risk	no incr.risk
AS	22.0	11.9	40.0	0	12	215	117	391	0.145	1,486	807	2,701	no incr.risk	no incr.risk
BA	792	217	537	0	217	7,744	2,123	5,251	4 2	1,841	505	1,249	593	no incr.risk
BE	1.40	0.603	1.21	1	1	13.7	5.90	11.8	1	10	4	8	1	no incr.risk
CA	220000	135230	250000	0	135230	2,151,111	1,322,248	2,444,444	nav	nav	nav	nav	nav	nav
CD	22.5	2.87	0.982	16	3	220	28 1	9.6	2.05	107	14	5	103	9
CO	12.2	5.54	8.59	3	6	119	54.2	84.0	nav	nav	nav	nav	nav	nav
CR	950	131	48.5	5	131	9,289	1,279	474	3	3,328	458	170	3,158	288
CU	170	37.4	27.6	6	37	1,662	365	270	32	51	11	8	43	3
CYN	3.13	0.688	0	1	1	30.6	6.72	nap	nav	nav	nav	nav	nap	nap
DBZFUR	0.110	18.2	0	1	0	1.08	1.08	nap	nav	nav	nav	nav	nap	nap
DEP	0.470	125	0	1	0	4.60	5	nap	nav	nav	nav	nav	nap	nap
DNBP	0.920	31.2	0	2	1	9.00	9.00	nap	nav	nav	nav	nav	nap	nap
FE	73200	17546	24300	1	17546	715,733	171,561	237,600	483	1,482	355	492	990	no incr.risk
HG	1.80	0.109	0.143	3	0	17.6	1.07	1.40	3	6	<1	<1	6	no incr.risk
K	7590	5401	7940	0	5401	74,213	52,814	77,636	nav	nav	nav	nav	nav	nav
MEC6H5	0.00800	0.399	0	2	0	0 0782	0.08	nap	29.9	<1	<1	nap	nap	nap
MG	32200	14558	16150	3	14558	314,844	142,348	157,911	nav	nav	nav	nav	nav	nav
MN	744	432	658	2	432	7,275	4,223	6,434	187	39	23	34	4	no incr.risk
NA	1570	845	5610	0	845	15,351	8,259	54,853	nav	nav	nav	nav	nav	nav
NAP	0.600	18.5	0.0	3	1	5.87	5.87	nap	nav	nav	nav	nav	nap	nap
NI	**73.1**	**24.0**	**27.9**	**4**	**24**	**715**	**235**	**273**	**85**	**8**	**3**	**3**	**5**	**no incr.risk**
PB	**750**	**162**	**35.0**	**18**	**162**	**7,333**	**1,585**	**342**	**16.99**	**432**	**93**	**20**	**411**	**73**
PCB260	**0.157**	**0.1**	**0**	**1**	**0**	**1.54**	**0.55**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
PHANTR	**0.130**	**16.9**	**0**	**2**	**0**	**1.27**	**1.27**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
SB	**25.5**	**5.44**	**11.9**	**1**	**5**	**249.3**	**53**	**116**	**0.144**	**1,736**	**370**	**810**	**926**	**no incr.risk**
SE	**0.355**	**0.154**	**0.208**	**2**	**0**	**3.47**	**1.51**	**2.03**	**0.425**	**8**	**4**	**5**	**3**	**no incr.risk**
TL	**34.0**	**16.4**	**49.9**	**0**	**16**	**332**	**160**	**488**	**0.016**	**20,931**	**10,094**	**30,720**	**no incr.risk**	**no incr.risk**
V	**72.8**	**27.4**	**62.6**	**2**	**27**	**712**	**268**	**612**	**0 414**	**1,719**	**648**	**1,478**	**241**	**no incr.risk**
ZN	**2950**	**408**	**144**	**10**	**408**	**28,844**	**3,990**	**1,408**	**340**	**85**	**12**	**4**	**81**	**8**

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0 176 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0 0306 x (body wt , kg)$^{0.564}$]/ body wt , kg, (Eq. 15, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e , 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0 018 kg, low end of range (18 - 45g) from *Burt and Grossenheider* 1976)

[b] Screening-level Values (mg/kg-body wt /day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al 1996, mink = 1kg, EPA 1993) to the deer mouse (0 018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt}_t / \text{body wt}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq 4, Sample et al 1996) The $NOAEL_t$ values from Sample et al 1996

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

NOAEL = no observed adverse effects level

Table 7-5 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 5, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
2MNAP	0.480	24.9	0	2	0.406	0.406	nap	nav	nav	nav	nav	nap	nap
AG	78.0	6.95	0.435	3	65.9	5.876	0.368	nav	nav	nav	nav	nav	nav
AL	24300	12093	25200	0	20,535	10,219	21,296	109.7	187	93	194	no incr.risk	no incr.risk
AS	22.0	11.9	40.0	0	18.6	10.1	33.8	2.46	8	4	14	no incr.risk	no incr.risk
BA	792	217	537	0	669	184	454	20.8	32	9	22	10	no incr.risk
BE	1.40	0.603	1.21	1	1.18	0.510	1.02	nav	nav	nav	nav	nav	nav
CA	220000	135230	250000	0	185,915	114,279	211,268	nav	nav	nav	nav	nav	nav
CD	22.5	2.87	0.982	16	19.0	2.43	0.830	1.45	13	2	<1	13	1
CO	12.2	5.54	8.59	3	10.3	4.68	7.26	nav	nav	nav	nav	nav	nav
CR	950	131	48.5	5	803	111	41.0	1	803	111	41	762	70
CU	170	37.4	27.6	6	144	31.6	23.3	47	3	<1	<1	3	no incr.risk
CYN	3.13	0.688	0	1	2.65	0.581	nap	nav	nav	nav	nav	nap	nap
DBZFUR	0.110	18.2	0	1	0.0930	0.093	nap	nav	nav	nav	nav	nap	nap
DEP	0.470	125	0	1	0.397	0.397	nap	nav	nav	nav	nav	nap	nap
DNBP	0.920	31.2	0	2	0.777	0.777	nap	nav	nav	nav	nav	nap	nap
FE	73200	17546	24300	1	61,859	14,828	20,535	nav	nav	nav	nav	nav	nav
HG	1.80	0.109	0.143	3	1.52	0.0921	0.121	0.45	3	<1	<1	3	no incr.risk
K	7590	5401	7940	0	6,414	4,565	6,710	nav	nav	nav	nav	nav	nav
MEC6H5	0.00800	0.399	0	2	0.0068	0.00676	nap	nav	nav	nav	nav	nap	nap
MG	32200	14558	16150	3	27,211	12,303	13,648	nav	nav	nav	nav	nav	nav
MN	744	432	658	2	629	365	556	977	<1	<1	<1	no incr.risk	no incr.risk
NA	1570	845	5610	0	1,327	714	4,741	nav	nav	nav	nav	nav	nav
NAP	0.600	18.5	0.0	3	0.507	0.507	nap	nav	nav	nav	nav	nap	nap
NI	**73.1**	**24.0**	**27.9**	**4**	**61.8**	**20.3**	**23.6**	**77**	**<1**	**<1**	**<1**	**no incr.risk**	**no incr.risk**
PB	**750**	**162**	**35.0**	**18**	**634**	**137**	**29.6**	**1.13**	**561**	**121**	**26**	**535**	**95**
PCB260	**0.157**	**0.1**	**0**	**1**	**0.133**	**0.047**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
PHANTR	**0.130**	**16.9**	**0**	**2**	**0.110**	**0.110**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
SB	**25.5**	**5.44**	**11.9**	**1**	**21.5**	**4.60**	**10.1**	**nav**	**nav**	**nav**	**nav**	**nav**	**nav**
SE	0.355	0.154	0.208	2	0.300	0.130	0.176	0.50	<1	<1	<1	no incr.risk	no incr.risk
TL	34.0	16.4	49.9	0	28.7	13.9	42.2	nav	nav	nav	nav	nav	nav
V	72.8	27.4	62.6	2	61.5	23.2	52.9	11.4	5	2	5	no incr.risk	no incr.risk
ZN	2950	408	144	10	2,493	345	122	15	172	24	8	164	15

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0 0241 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0 0141 x (body wt kg)$^{0.85}$]/body wt, kg, (Eq 19, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e , 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0 0284 kg, arith mean of 44 individuals collected at DPG in 1995)

[b] Screening-level Values (mg/kg-body wt /day) = $NOAEL_w$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq 6, Sample et al 1996)

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc)/ screening-level ecotoxicity value

All body weights used in risk calculations were borrowed from study summaries in Sample et al 1996

NOAEL = no observed adverse effects level

Table 7-6 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 8, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
24DNT	2.31	0.480	0	1	22.6	4.69	nap	nav	nav	nav	nav	nap	nap
AG	0.837	0.512	0	3	8.18	5.0	4.25	nav	nav	nav	nav	nav	nav
AL	16900	14718	25200	0	165,244	143,914	246,400	2.22	74,503	64,885	111,093	no incr.risk	no incr.risk
AS	25.0	13.3	40.0	0	244	130	391	0.1	1,688	898	2,701	no incr.risk	no incr.risk
BA	617	325	537	0	6,033	3,181	5,251	4	1,435	756	1,249	186	no incr.risk
BE	0.815	0.651	1.21	0	7.97	6.36	11.8	1.40	6	5	8	no incr.risk	no incr.risk
C6H6	0.00500	0.796	0.0	1	0.0489	0.05	nap	nav	nav	nav	nav	nap	nap
CA	130000	137280	250000	0	1,271,111	1,271,111	2,444,444	nav	nav	nav	nav	nav	nav
CCL3F	0.00700	0.00100	0	2	0.0684	0.0098	nap	nav	nav	nav	nav	nap	nap
CD	6.43	3.87	0.982	9	62.9	37.9	9.6	2.0	31	18	5	26	14
CO	7.89	6.09	8.59	0	77.1	59.5	84.0	nav	nav	nav	nav	nav	nav
CR	59.2	34.2	48.5	1	579	335	474	2.79	207	120	170	37	no incr.risk
CU	260	151	27.6	9	2,542	1,472.05	270	32.3	79	46	8	70	37
FE	20400	15655	24300	0	199,467	153,075	237,600	483	413	317	492	no incr.risk	no incr.risk
HG	0.306	0.134	0.143	2	2.99	1.31	1.40	3	1	<1	<1	no incr.risk	no incr.risk
HMX	2.52	0.867	0	1	24.6	8.48	nap	nav	nav	nav	nav	nap	nap
K	7400	5760	7940	0	72,356	56,320	77,636	nav	nav	nav	nav	nav	nav
MG	19100	16417	16150	4	186,756	160,520	157,911	nav	nav	nav	nav	nav	nav
MN	634	469	658	0	6,199	4,585	6,434	187	33	25	34	no incr.risk	no incr.risk
NA	2880	1647	5610	0	28,160	16,103	54,853	nav	nav	nav	nav	nav	nav
NI	42.0	25.2	27.9	1	411	246	273	85	5	3	3	2	no incr.risk
PB	240	96.2	35.0	4	2,347	941	342	17.0	138	55	20	118	35
PHANTR	0.0820	17.5	0	1	0.802	0.80	nap	nav	nav	nav	nav	nap	nap
SB	25.5	8.93	11.9	1	249	87.3	116	0.144	1,736	608	810	926	no incr.risk
TL	33.3	27.5	49.9	0	326	269	488	0.016	20,500	16,909	30,720	no incr.risk	no incr.risk
V	27.8	22.8	62.6	0	272	223.16	612	0.414	656	539	1,478	no incr.risk	no incr.risk
ZN	2820	1071	144	7	27,573	10,474.84	1,408	340	81	31	4	77	27

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.176 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = [0.0306 x (body wt., kg)$^{0.564}$]/ body wt , kg, (Eq 15, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e , 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0 018 kg, low end of range (18 - 45g) from Burt and Grossenheider 1976)

[b] Screening-level Values (mg/kg-body wt /day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al 1996, mink = 1kg, EPA 1993) to the deer mouse (0 018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt}_t / \text{body wt}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq 4, Sample et al 1996) The $NOAEL_t$ values from Sample et al 1996

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

NOAEL = no observed adverse effects level

Table 7-7 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 8, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
24DNT	2.31	0.480	0	1	1.95	1.952	nap	nav	nav	nav	nav	nap	nap
AG	0.837	0.512	0	3	0.707	0.707	0.368	nav	nav	nav	nav	nav	nav
AL	16900	14718	25200	0	14,282	14,282	21,296	109.7	130	130	194	no incr.risk	no incr.risk
AS	25.0	13.3	40.0	0	21.1	21.1	33.8	2.5	9	9	14	no incr.risk	no incr.risk
BA	617	325	537	0	521	521	453.8	21	25	25	22	3	3
BE	0.815	0.651	1.21	0	0.689	0.689	1.023	nav	nav	nav	nav	nav	nav
C6H6	0.00500	0.796	0.0	1	0.00423	0.673	nap	nav	nav	nav	nav	nap	nap
CA	130000	137280	250000	0	109,859	116,011	211,268	nav	nav	nav	nav	nav	nav
CCL3F	0.00700	0.00100	0	2	0.00592	0.005915	nap	nav	nav	nav	nav	nap	nap
CD	6.43	3.87	0.982	9	5.43	5.43	0.83	1.5	4	4	<1	3	3
CO	7.89	6.09	8.59	0	6.67	6.67	7.26	nav	nav	nav	nav	nav	nav
CR	59.2	34.2	48.5	1	50.0	50.0	41.0	1.0	50	50	41	9	9
CU	260	151	27.6	9	220	220	23.3	47	5	5	<1	4	4
FE	20400	15655	24300	0	17,239	17,239	20,535	nav	nav	nav	nav	nav	nav
HG	0.306	0.134	0.143	2	0.259	0.259	0.121	0.45	<1	<1	<1	no incr.risk	no incr.risk
HMX	2.52	0.867	0	1	2.13	2.13	nap	nav	nav	nav	nav	nap	nap
K	7400	5760	7940	0	6,254	6,254	6,710	nav	nav	nav	nav	nav	nav
MG	19100	16417	16150	4	16,141	16,141	13,648	nav	nav	nav	nav	nav	nav
MN	634	469	658	0	536	536	556	977	<1	<1	<1	no incr.risk	no incr.risk
NA	2880	1647	5610	0	2,434	2,434	4,741	nav	nav	nav	nav	nav	nav
NI	42.0	25.2	27.9	1	35.5	35.5	23.6	77	<1	<1	<1	no incr.risk	no incr.risk
PB	240	96.2	35.0	4	203	202.8	29.6	1.13	179	179	26	153	153
PHANTR	0.0820	17.5	0	1	0.0693	14.8	nap	nav	nav	nav	nav	nap	nap
SB	25.5	8.93	11.9	1	21.5	21.55	10.1	nav	nav	nav	nav	nav	nav
TL	33.3	27.5	49.9	0	28.1	28.1	42.2	nav	nav	nav	nav	nav	nav
V	27.8	22.8	62.6	0	23.5	23.5	52.9	11.40	2	2	5	no incr.risk	no incr.risk
ZN	2820	1071	144	7	2,383	2,383	122	15	164	164	8	156	156

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.0241 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0.0141 x (body wt. kg)$^{0.85}$]/body wt, kg, (Eq 19, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt (0.0284 kg, arith mean of 44 individuals collected at DPG in 1995)

[b] Screening-level Values (mg/kg-body wt /day) = $NOAEL_w$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq 6, Sample et al 1996)

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

All body weights used in risk calculations were borrowed from study summaries in Sample et al 1996

NOAEL = no observed adverse effects level

Table 7-8 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 9, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
ACET	0.0210	4.33	0	1	0.205	0.205	nap	21.2	<1	<1	nap	nap	nap
AL	50400	13796	25200	1	492,800	134,895	246,400	2.22	222,185	60,819	111,093	111,093	no incr.risk
AS	17.0	7.89	40.0	0	166	77.2	391	0.145	1,148	533	2,701	no incr.risk	no incr.risk
B2EHP	0.980	158	0	1	9.58	9.58	nap	21.0	<1	<1	nap	nap	nap
BA	337	195	537	0	3,295	1,902	5,251	4.21	784	452	1,249	no incr.risk	no incr.risk
BE	1.67	0.681	1.21	4	16.3	6.65	11.8	1.40	12	5	8	3	no incr.risk
CA	200000	130621	250000	0	1,955,556	1,277,179	2,444,444	nav	nav	nav	nav	nav	nav
CCL3F	0.0100	0.00102	0	2	0.098	0.0100	nap	nav	nav	nav	nav	nap	nap
CD	3.39	707132	0.982	3	33.1	33.1	9.60	2.05	16	16	5	11	11
CL6BZ	1.10	15.7	0	2	10.8	10.8	nap	nav	nav	nav	nav	nap	nap
CO	6.82	5.04	8.59	0	66.7	49.2	84	nav	nav	nav	nav	nav	nav
CR	29.2	14.7	48.5	0	286	144	474	2.79	102	51	170	no incr.risk	no incr.risk
CU	966	41.8	27.6	2	9,445	408	270	32.3	292	13	8	284	4
DNBP	10.0	22.0	0	11	97.8	97.8	nap	nav	nav	nav	nav	nap	nap
FE	14800	10883	24300	0	144,711	106,414	237,600	483	300	220	492	no incr.risk	no incr.risk
HG	0.147	0.0310	0.143	1	1.44	0.303	1.40	2.76	<1	<1	<1	no incr.risk	no incr.risk
IMPA	15.5	0.922	0	1	152	9.02	nap	nav	nav	nav	nav	nap	nap
K	6730	4541	7940	0	65,804	44,400	77,636	nav	nav	nav	nav	nav	nav
MEC6H5	1.10	0.379	0	4	10.8	3.71	nap	29.9	<1	<1	nap	nap	nap
MG	19200	12573	16150	2	187,733	122,935	157,911	nav	nav	nav	nav	nav	nav
MN	686	458	658	4	6,708	4,477	6,434	187	36	24	34	1	no incr.risk
MPA	3.61	1.07	0	2	35.3	10.4	nap	nav	nav	nav	nav	nap	nap
NA	1990	738	5610	0	19,458	7,214	54,853	nav	nav	nav	nav	nav	nav
NI	25.7	13.7	27.9	0	251	134	273	85.0	3	2	3	no incr.risk	no incr.risk
PB	**210**	**34.9**	**35.0**	**8**	**2,053**	**342**	**342**	**17.0**	**121**	**20**	**20**	**101**	**no incr.risk**
PCB248	**0.530**	**0.1**	**0**	**3**	**5.18**	**0.85**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
PCB254	**0.670**	**0.1**	**0.0**	**1**	**6.55**	**0.83**	**nap**	**nav**	**nav**	**nav**	**nav**	**nap**	**nap**
SB	13.1	263162	11.9	1	128	128	116	0.144	892	892	810	82	82
TL	33.2	15.7	50	0	325	154	488	0.016	20,439	9,689	30,720	no incr.risk	no incr.risk
V	27.0	17.5	63	0	264	171	612	0.41	638	413	1,478	no incr.risk	no incr.risk
ZN	366	68.1	144	1	3,579	665	1,408	340	11	2	4	6	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.176 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0.0306 x (body wt., kg)$^{0.564}$]/ body wt , kg, (Eq 15, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e , 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0.018 kg, low end of range (18 - 45g) from Burt and Grossenheider 1976)

[b] Screening-level Values (mg/kg-body wt /day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al. 1996, mink = 1kg, EPA 1993) to the deer mouse (0.018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt}_t / \text{body wt}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq 4, Sample et al 1996). The $NOAEL_t$ values from Sample et al 1996

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc)/ screening-level ecotoxicity value

NOAEL = no observed adverse effects level

Table 7-9 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 9, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_m$	Maximum	UCL	Bknd	Maximum	UCL
ACET	0.0210	4.33	0	1	0.0177	0.0177	nap	nav	nav	nav	nav	nap	nap
AL	50400	13796	25200	1	42,592	11,659	21,296	109.7	388	106	194	194	no incr.risk
AS	17.0	7.89	40.0	0	14.4	6.67	33.8	2.46	6	3	14	no incr.risk	no incr.risk
B2EHP	0.980	158	0	1	0.828	0.828	nap	nav	nav	nav	nav	nap	nap
BA	337	195	537	0	285	164	454	20.8	14	8	22	no incr.risk	no incr.risk
BE	1.67	0.681	1.21	4	1.41	0.575	1.02	nav	nav	nav	nav	nav	nav
CA	200000	130621	250000	0	169,014	110,384	211,268	nav	nav	nav	nav	nav	nav
CCL3F	0.0100	0.00102	0	2	0.00845	0.000863	nap	nav	nav	nav	nav	nap	nap
CD	3.39	707132	0.982	3	2.86	2.86	0.830	1.45	2	2	<1	1	1
CL6BZ	1.10	15.7	0	2	0.930	0.930	nap	nav	nav	nav	nav	nap	nap
CO	6.82	5.04	8.59	0	5.76	4.25	7.26	nav	nav	nav	nav	nav	nav
CR	29.2	14.7	48.5	0	24.7	12.4	41.0	1.0	25	12	41	no incr.risk	no incr.risk
CU	966	41.8	27.6	2	816	35.3	23.3	47	17	<1	<1	17	no incr.risk
DNBP	10.0	22.0	0	11	8.45	8.45	nap	nav	nav	nav	nav	nap	nap
FE	14800	10883	24300	0	12,507	9,197	20,535	nav	nav	nav	nav	nav	nav
HG	0.147	0.0310	0.143	1	0.124	0.0262	0.121	0.45	<1	<1	<1	no incr.risk	no incr.risk
IMPA	15.5	0.922	0	1	13.1	0.779	nap	nav	nav	nav	nav	nap	nap
K	6730	4541	7940	0	5,687	3,837	6,710	nav	nav	nav	nav	nav	nav
MEC6H5	1.10	0.379	0	4	0.930	0.320	nap	nav	nav	nav	nav	nap	nap
MG	19200	12573	16150	2	16,225	10,625	13,648	nav	nav	nav	nav	nav	nav
MN	686	458	658	4	580	387	556	977	<1	<1	<1	no incr.risk	no incr.risk
MPA	3.61	1.067	0	2	3.05	0.902	nap	nav	nav	nav	nav	nap	nap
NA	1990	738	5610	0	1,682	624	4,741	nav	nav	nav	nav	nav	nav
NI	25.7	13.7	27.9	0	21.7	11.6	23.6	77.4	<1	<1	<1	no incr.risk	no incr.risk
PB	210	34.9	35.0	8	177	29.5	29.6	1.1	157	26	26	131	no incr.risk
PCB248	0.530	0.1	0	3	0.448	0.074	nap	nav	nav	nav	nav	nap	nap
PCB254	0.670	0.1	0	1	0.566	0.072	nap	nav	nav	nav	nav	nap	nap
SB	13.1	263162	11.9	1	11.1	11.1	10	nav	nav	nav	nav	nav	nav
TL	33.2	15.7	49.9	0	28.1	13.3	42.2	nav	nav	nav	nav	nav	nav
V	27.0	17.5	62.6	0	22.8	14.8	52.9	11.4	2	1	5	no incr.risk	no incr.risk
ZN	366	68.1	144	1	309	57.5	122	15	21	4	8	13	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.0241 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0.0141 x (body wt kg)$^{0.85}$]/body wt, kg, (Eq 19, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0.0284 kg, arith. mean of 44 individuals collected at DPG in 1995)

[b] Screening-level Values (mg/kg-body wt/day) = $NOAEL_m$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq 6, Sample et al 1996)

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc.)/ screening-level ecotoxicity value

All body weights used in risk calculations were borrowed from study summaries in Sample et al 1996

NOAEL = no observed adverse effects level

Table 7-10 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 30, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_m$	Maximum	UCL	Bknd	Maximum	UCL
AG	1.27	0.613	0.435	1	13.1	6.35	4.50	nav	nav	nav	nav	nav	nav
AL	16300	14883	25200	0	168,753	154,084	260,894	2.22	76,084	69,471	117,627	no incr.risk	no incr.risk
AS	10.3	8.88	40.0	0	107	91 9	414	0.14	736	635	2,860	no incr.risk	no incr.risk
BA	182	163	537	0	1,884	1,684	5,560	4.21	448	401	1,322	no incr.risk	no incr.risk
BE	0.943	0.721	1.21	0	9.76	7.46	12.5	1.40	7	5	9	no incr.risk	no incr.risk
CA	130000	117133	250000	0	1,345,882	1,212,676	2,588,235	nav	nav	nav	nav	nav	nav
CCL3F	0.00900	0.00459	0	2	0.0932	0.0475	nap	nav	nav	nav	nav	nap	nap
CD	1.30	0 856	0.982	2	13.5	8.86	10.2	2.05	7	4	5	2	no incr.risk
CH2CL2	0.0150	2.97	0	3	0.155	0.155	nap	11.98	<1	<1	nap	nap	nap
CO	6.12	5.49	8.59	0	63.4	56 9	88.9	nav	nav	nav	nav	nav	nav
CR	20.5	18.4	48.5	0	212	191	502	2.79	76	68	180	no incr.risk	no incr.risk
CU	29 7	24.1	27.6	1	307	249	286	32.3	10	8	9	no incr.risk	no incr.risk
DNBP	0.110	52.0	0	2	1.14	1.14	nap	nav	nav	nav	nav	nap	nap
FE	15400	14141	24300	0	159,435	146,405	251,576	483	330	303	521	no incr.risk	no incr.risk
HG	0.0400	0.0218	0.143	0	0.414	0.226	1.48	2.8	<1	<1	<1	no incr.risk	no incr.risk
K	8860	7395	7940	1	91,727	76,560	82,202	nav	nav	nav	nav	nav	nav
MEC6H5	0.00100	0.431	0	1	0.0104	0.0104	nap	29.9	<1	<1	nap	nap	nap
MG	39100	30654	16150	9	404,800	317,361	167,200	nav	nav	nav	nav	nav	nav
MN	657	506	658	0	6,802	5,242	6,812	187	36	28	36	no incr.risk	no incr.risk
NA	20400	12220	5610	3	211,200	126,508	58,080	nav	nav	nav	nav	nav	nav
NI	21 8	19.2	27.9	0	226	199	289	85	3	2	3	no incr.risk	no incr.risk
PB	57.0	37.7	35.0	2	590	391	362	17	35	23	21	13	2
PETN	2.74	2.64	0	6	28.4	27.4	nap	nav	nav	nav	nav	nap	nap
SB	10.7	5.90	11.9	0	111	61.1	123	0.14	771	425	858	no incr.risk	no incr.risk
SE	0.517	0.254	0.208	1	5.35	2.63	2.15	0.42	13	6	5	8	1
TL	24.4	15.1	49.9	0	253	156	517	0.016	15,905	9,838	32,527	no incr.risk	no incr.risk
V	29.6	24.1	62.6	0	306	250	648	0.414	740	603	1,565	no incr.risk	no incr.risk
ZN	110	88.9	144	0	1,139	921	1,491	340	3	3	4	no incr.risk	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0 176 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = [0 0306 x (body wt., kg)$^{0.564}$]/ body wt , kg, (Eq 15, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt (0 018 kg, low end of range (18 - 45g) from Burt and Grossenheider 1976)

[b] Screening-level Values (mg/kg-body wt /day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al 1996, mink = 1kg, EPA 1993) to the deer mouse (0 018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt}_t / \text{body wt}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq 4, Sample et al 1996) The $NOAEL_t$ values from Sample et al 1996

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

NOAEL = no observed adverse effects level

Table 7-11 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 30, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
AG	1.27	0.613	0.435	1	1.07	0.518	0.368	nav	nav	nav	nav	nav	nav
AL	16300	14883	25200	0	13,775	12.577	21,296	109.7	126	115	194	no incr.risk	no incr.risk
AS	10.3	8.88	40.0	0	8.70	7.50	33.8	2.46	4	3	14	no incr.risk	no incr.risk
BA	182	163	537	0	154	137	454	20.8	7	7	22	no incr.risk	no incr.risk
BE	0.943	0.721	1.21	0	0.797	0.609	1.02	nav	nav	nav	nav	nav	nav
CA	130000	117133	250000	0	109,859	98,986	211,268	nav	nav	nav	nav	nav	nav
CCL3F	0.00900	0.00459	0	2	0.00761	0.00388	nap	nav	nav	nav	nav	nap	nap
CD	1.30	0.856	0.982	2	1.10	0.724	0.830	1	<1	<1	<1	no incr.risk	no incr.risk
CH2CL2	0.0150	2.97	0	3	0.0127	0.0127	nap	nav	nav	nav	nav	nap	nap
CO	6.12	5.49	8.59	0	5.17	4.64	7.26	nav	nav	nav	nav	nav	nav
CR	20.5	18.4	48.5	0	17.3	15.6	41.0	1.0	17	16	41	no incr.risk	no incr.risk
CU	29.7	24.1	27.6	1	25.1	20.4	23.3	47	<1	<1	<1	no incr.risk	no incr.risk
DNBP	0.110	52.0	0	2	0.0930	0.0930	nap	nav	nav	nav	nav	nap	nap
FE	15400	14141	24300	0	13,014	11,950	20,535	nav	nav	nav	nav	nav	nav
HG	0.0400	0.0218	0.143	0	0.0338	0.0184	0.121	0.45	<1	<1	<1	no incr.risk	no incr.risk
K	8860	7395	7940	1	7,487	6,249	6,710	nav	nav	nav	nav	nav	nav
MEC6H5	0.00100	0.431	0	1	0.000845	0.000845	nap	nav	nav	nav	nav	nap	nap
MG	39100	30654	16150	9	33,042	25,905	13,648	nav	nav	nav	nav	nav	nav
MN	657	506	658	0	555	428	556	977	<1	<1	<1	no incr.risk	no incr.risk
NA	20400	12220	5610	3	17,239	10,326	4,741	nav	nav	nav	nav	nav	nav
NI	21.8	19.2	27.9	0	18.4	16.2	23.6	77.4	<1	<1	<1	no incr.risk	no incr.risk
PB	57.0	37.7	35.0	2	48.2	31.9	29.6	1.13	43	28	26	16	2
PETN	2.74	2.64	0	6	2.32	2.23	nap	nav	nav	nav	nav	nap	nap
SB	10.7	5.90	11.9	0	9.04	4.99	10.1	nav	nav	nav	nav	nav	nav
SE	0.517	0.254	0.208	1	0.437	0.215	0.176	0.50	<1	<1	<1	no incr.risk	no incr.risk
TL	24.4	15.1	49.9	0	20.6	12.8	42.2	nav	nav	nav	nav	nav	nav
V	29.6	24.1	62.6	0	25.0	20.4	52.9	11.4	2	2	5	no incr.risk	no incr.risk
ZN	110	88.9	144	0	93.0	75.1	122	14.5	6	5	8	no incr.risk	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0 0241 kg/d, where chemical concentration in food is assumed to be the same as soil, food intake rate = [0 0141 x (body wt kg)$^{0.85}$]/body wt, kg, (Eq 19, Sample et al 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i e , 1 if non-adult or during reproduction, 2 if adult), all divided by body wt (0 0284 kg, arith mean of 44 individuals collected at DPG in 1995)

[b] Screening-level Values (mg/kg-body wt /day) = $NOAEL_w$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq 6, Sample et al 1996)

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

All body weights used in risk calculations were borrowed from study summaries in Sample et al 1996

NOAEL = no observed adverse effects level

Table 7-12 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Deer Mouse at SWMU 31, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
246TNT	0.958	0.679	0	2	9.92	7.03	nap	nav	nav	nav	nav	nap	nap
AL	16300	15651	25200	0	168,753	162,032	260,894	2.218	76,084	73,054	117,627	no incr.risk	no incr.risk
AS	18.0	14.8	40.0	0	186	154	414	0.145	1,287	1,061	2,860	no incr.risk	no incr.risk
BA	234	202	537	0	2,417	2,090	5,560	4.21	575	497	1,322	no incr.risk	no incr.risk
BE	1.15	1.03	1.21	0	11.9	10.7	12.5	1.40	8	8	9	no incr.risk	no incr.risk
CA	110000	111524	250000	0	1,138,824	1,138,824	2,588,235	nav	nav	nav	nav	nav	nav
CD	2.37	1.68	0.982	6	24.5	17.4	10.2	2.05	12	8	5	7	4
CH2CL2	0.00700	1.50	0	1	0.0725	0.0725	nap	11.98	<1	<1	nap	nap	nap
CO	6.65	6.73	8.59	0	68.8	68.8	88.9	nav	nav	nav	nav	nav	nav
CR	24.7	19.3	48.5	0	256	200	502	2.79	92	72	180	no incr.risk	no incr.risk
CU	76.2	55.3	27.6	4	788	572	286	32.3	24	18	9	16	9
FE	18300	16263	24300	0	189,459	168,370	251,576	483	392	349	521	no incr.risk	no incr.risk
HG	0.195	0.0929	0.143	1	2.02	0.962	1.48	2.76	<1	<1	<1	no incr.risk	no incr.risk
K	5510	4831	7940	0	57,045	50,015	82,202	nav	nav	nav	nav	nav	nav
MG	46400	30991	16150	5	480,376	320,845	167,200	nav	nav	nav	nav	nav	nav
MN	603	454	658	0	6,243	4,696	6,812	187	33	25	36	no incr.risk	no incr.risk
NA	2440	2211	5610	0	25,261	22,887	58,080	nav	nav	nav	nav	nav	nav
NI	32.2	26.2	27.9	1	333	271	289	85	4	3	3	no incr.risk	no incr.risk
PB	24.0	21.7	35.0	0	248	225	362	17	15	13	21	no incr.risk	no incr.risk
SB	12.4	7.01	11.9	1	128	72.6	123	0.14	894	505	858	36	no incr.risk
TL	30.0	23.4	49.9	0	311	242	517	0.02	19,555	15,248	32,527	no incr.risk	no incr.risk
V	27.8	26.5	62.6	0	288	274	648	0.41	695	662	1,565	no incr.risk	no incr.risk
ZN	166	118	144	1	1,719	1,223	1,491	340	5	4	4	no incr.risk	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.176 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = [0.0306 x (body wt., kg)$^{0.564}$]/ body wt., kg, (Eq. 15, Sample et a. 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt (0.018 kg, low end of range (18 - 45g) from Burt and Grossenheider 1976).

[b] Screening-level Values (mg/kg-body wt./day) = extrapolated from the test animal (all body weights were provided in study summaries in Sample et al. 1996; mink = 1kg, EPA 1993) to the deer mouse (0.018 kg) using the formula $NOAEL_w = NOAEL_t \times (\text{body wt.}_t / \text{body wt.}_w)^{0.25}$, where $_w$ = wildlife species and $_t$ = test species (Eq.4, Sample et al 1996) The $NOAEL_t$ values from Sample et al 1996

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value

[d] Incremental risk (HQ) = (maximum or UCL conc - background conc)/ screening-level ecotoxicity value

NOAEL = no observed adverse effects level

Table 7-13 Preliminary Exposure Estimates and Risk Calculations Based on NOAEL Dose Rates (mg/kg-bw/day) for the Horned Lark at SWMU 31, Deseret Chemical Depot

					Exposure Estimate for Soil (mg/kg-BW/day)[a]				Hazard Quotient Diet[c]			Incremental Risk (HQ)[d]	
Chemical	Max. Soil Conc. (mg/kg)	UCL Soil Conc. (mg/kg)	Background Soil Conc. (mg/kg)	No. Detects > Bkgd	Maximum	UCL	Bknd	SL Value Diet (mg/kg-BW/day)[b] $NOAEL_w$	Maximum	UCL	Bknd	Maximum	UCL
246TNT	0.958	0.679	0	2	0.810	0.574	nap	nav	nav	nav	nav	nap	nap
AL	16300	15651	25200	0	13,775	13,226	21,296	2.46	5,599	5,376	8,657	no incr.risk	no incr.risk
AS	18.0	14.8	40.0	0	15.2	12.5	33.8	2.5	6	5	14	no incr.risk	no incr.risk
BA	234	202	537	0	197	171	454	20.8	9	8	22	no incr.risk	no incr.risk
BE	1.15	1.03	1.21	0	0.972	0.873	1.02	nav	nav	nav	nav	nav	nav
CA	110000	111524	250000	0	92,958	92,958	211,268	nav	nav	nav	nav	nav	nav
CD	2.37	1.68	0.982	6	2.00	1.42	0.830	1.45	1	<1	<1	no incr.risk	no incr.risk
CH2CL2	0.00700	1.50	0	1	0.00592	0.00592	nap	nav	nav	nav	nav	nap	nap
CO	6.65	6.73	8.59	0	5.62	5.62	7.26	nav	nav	nav	nav	nav	nav
CR	24.7	19.3	48.5	0	20.9	16.3	41.0	1.0	21	16	41	no incr.risk	no incr.risk
CU	76.2	55.3	27.6	4	64.4	46.7	23.3	47	1	<1	<1	no incr.risk	no incr.risk
FE	18300	16263	24300	0	15,465	13,743	20,535	nav	nav	nav	nav	nav	nav
HG	0.195	0.0929	0.143	1	0.165	0.0785	0.121	0.45	<1	<1	<1	no incr.risk	no incr.risk
K	5510	4831	7940	0	4,656	4,083	6,710	nav	nav	nav	nav	nav	nav
MG	46400	30991	16150	5	39,211	26,189	13,648	nav	nav	nav	nav	nav	nav
MN	603	454	658	0	510	383	556	977	<1	<1	<1	no incr.risk	no incr.risk
NA	2440	2211	5610	0	2,062	1,868	4,741	nav	nav	nav	nav	nav	nav
NI	32.2	26.2	27.9	1	27.2	22.1	23.6	77	<1	<1	<1	no incr.risk	no incr.risk
PB	24.0	21.7	35.0	0	20.3	18.3	29.6	1	18	16	26	no incr.risk	no incr.risk
SB	12.4	7.01	11.9	1	10.5	5.93	10.1	nav	nav	nav	nav	nav	nav
TL	30.0	23.4	49.9	0	25.4	19.8	42.2	nav	nav	nav	nav	nav	nav
V	27.8	26.5	62.6	0	23.5	22.4	52.9	11.4	2	2	5	no incr.risk	no incr.risk
ZN	166	118	144	1	140	99.8	122	14.5	10	7	8	1	no incr.risk

nav = not available nap = not applicable

[a] Exposure Estimates = product of maximum soil concentration, food intake rate (0.0241 kg/d, where chemical concentration in food is assumed to be the same as soil; food intake rate = [0.0141 x (body wt. kg)$^{0.85}$]/body wt, kg, (Eq. 19, Sample et al. 1997), exposure area/period (100%), bioavailability (100%), and life stage used (i.e., 1 if non-adult or during reproduction, 2 if adult); all divided by body wt. (0.0284 kg, arith mean of 44 individuals collected at DPG in 1995).

[b] Screening-level Values (mg/kg-body wt./day) = $NOAEL_w$ = $NOAEL_t$ (where $_w$ = wildlife, $_t$ = test animal, Eq. 6, Sample et al. 1996).

[c] Hazard Quotient = exposure estimate divided by the screening-level ecotoxicity value.

[d] Incremental risk (HQ) = (maximum or UCL conc. - background conc.)/ screening-level ecotoxicity value.

All body weights used in risk calculations were borrowed from study summaries in Sample et al 1996

NOAEL = no observed adverse effects level