

DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL

DIVISION OF WASTE AND HAZARDOUS SUBSTANCES

Site Investigation & Restoration Section



**Guidance for Notification Requirements**

January 2013

**Reporting Level Table**

Updated July 2016

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## **1.0 Introduction**

- 1.1 The purpose of this document is to provide guidance for Section 3.1 of the Regulations Governing Hazardous Substance Cleanup and to help owners or operators understand how and when to notify the State of contamination.
- 1.2 This regulation and guidance is designed to provide notification to the State of Delaware of hazardous or potentially hazardous conditions that exist on property that is planned for development.
- 1.3 The notification is intended to facilitate possible remedial actions that will limit exposure to the public, provide cost-effective oversight, and limit potential liability for property owners.
- 1.4 Notification, in and of itself, does not mean that remediation will be initiated; however, it does mean that the Department of Natural Resources and Environmental Control, Site Investigation and Restoration Section (DNREC-SIRS) will review the available information and decide if further action is warranted.

## **2.0 Releases and Potential Releases which Require Notification**

- 2.1 Any exceedance of the reporting level table will be subject to the notification requirement if the owner or operator is planning on undertaking land disturbing activities at a facility.
  - 2.1.1 Land disturbing activities include, but are not limited to, digging, drilling, excavating, grading, clearing, earth moving, filling, or performing any subsurface work. Land disturbing activities do not include environmental investigation, planning, designing, or engineering work related to the facility.
  - 2.1.2 Example – A facility owner has a Phase II Environmental Site Assessment (ESA) performed and analytical data is obtained. One of the data points exceeds the reporting level, and it is in an area where they are planning to develop the property or dig a new utility trench. The owner must notify DNREC-SIRS at least 30 days in advance of the land disturbing activity, so DNREC-SIRS has enough time to review the report and determine what further action is appropriate.
- 2.2 Any evidence of a release during land disturbing activities will require notification within 24 hours to the Department's 24 Hour Release Hotline (800-662-8802). Land disturbing activities may continue on another part of the property as long as it is not immediately adjacent to the area where there is evidence of a release. This will prevent situations where all work must stop because the workers can move to another area on the facility and continue to work; however, if they find evidence of a release at the new area, they must continue moving until they can complete their task without finding evidence of a release.
  - 2.2.1 Evidence of a release includes, but is not limited to, appearance of a sheen, soil staining, or odors characteristic of hazardous substances; buried materials that may contain hazardous substances; or, presence of free product.
  - 2.2.2 Example – A facility owner starts developing a facility without performing a Phase I or Phase II ESA and discovers evidence of a release. The owner must call

the 24 Hour Release Hotline within 24 hours of the discovery. The DNREC Emergency Prevention and Response Section (DNREC-EPRS) may handle the response or they may refer it to DNREC-SIRS. Once DNREC-SIRS is notified of the situation, DNREC-SIRS will determine what further action may be appropriate.

- 2.2.3 Example – A facility owner has a Phase II ESA performed and analytical data is obtained. None of the data points exceed the reporting levels, so the facility owner does not need to notify DNREC-SIRS. However, when they begin digging for the new development or utility trench, they notice free product. The owner must call the 24 Hour Release Hotline within 24 hours of the discovery. The DNREC-EPRS may handle the response or they may refer it to DNREC-SIRS. Once DNREC-SIRS is notified of the situation, DNREC-SIRS will determine what further action may be appropriate.

### **3.0 Who is Required to Notify**

- 3.1 The owner or operator is required to notify DNREC-SIRS if (1) he is planning on undertaking land disturbing activities and he knows that the land has concentrations of hazardous substances at or above the reporting levels; or (2) he became aware of a release while land disturbing activities were taking place at the facility.
- 3.1.1 An owner or operator is anyone who owns or operates a facility or who previously owned or operated a facility. For example, a facility manager is an operator because he is involved in operating the facility and is more likely to be aware of possible contamination.
- 3.2 A Brownfield Developer, prospective purchaser, or a person acting on behalf of the Brownfield Developer, the prospective purchaser, or the owner or operator can report a release to DNREC-SIRS if they are aware of (1) contamination that is at or above the reporting levels; or (2) evidence of a release that becomes apparent during land disturbing activities.
- 3.3 Any person who is aware of (1) contamination that is at or above the reporting levels; or (2) evidence of a release that becomes apparent during land disturbing activities is encouraged to notify DNREC-SIRS, but is not required to do so.

### **4.0 How Owners or Operators Notify DNREC**

- 4.1 Notification prior to land disturbing activities
- 4.1.1 The owner or operator should submit a letter, via email or hard copy, that includes the current address and tax parcel of the property, current and future use, a copy of a Phase I and/or Phase II ESA report, including laboratory data in an editable format (Excel or EDD), and any anecdotal evidence to DNREC-SIRS at least 30 days prior to undertaking land disturbing activities. This will provide DNREC-SIRS with enough time to review the information, meet with the owner or operator, and determine what future actions are appropriate.

4.2 Notification during land disturbing activities

- 4.2.1 The owner or operator, or any person acting on his behalf, must notify the 24 Hour Release Hotline (800-662-8802) within 24 hours of noticing the evidence of release. The DNREC-EPRS will determine the next appropriate action.

**5.0 How DNREC-SIRS notifies an owner or operator of a release**

- 5.1 If DNREC-SIRS learns of a release at a facility, DNREC-SIRS will contact the owner or operator via phone call and follow up with a letter, via email or hard copy, to obtain any necessary information, including whether they are planning to undertake land disturbing activities.

**6.0 Reporting Levels**

- 6.1 Reporting levels are the concentrations of hazardous substances in the environment that are at or above the levels established by the Department, except for groundwater for which the reporting level shall be equivalent to the levels contained in the Delaware and federal drinking water standards. Reporting levels are indicated in the reporting level table in Appendix A of this guidance and on the SIRS webpage.
- 6.2 Reporting levels are only used for notification purposes and should not be used for cleanup purposes. They are not the same as cleanup levels and they should not be used as default cleanup levels. They do not take the place of a human health or ecological risk assessment. There may be a risk to human health or the environment at concentrations in soil or groundwater less than the concentrations listed in the table of reporting levels. Reporting levels do not adequately account for cumulative risk to human health or the environment.
- 6.3 Reporting levels for Soil
- 6.3.1 DNREC-SIRS reporting levels for soil are primarily based on the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential soil, with several exceptions. Regardless of the current or future land use (i.e., residential, commercial, or industrial) at a facility, soil sample results at all facilities should be compared to the DNREC-SIRS soil reporting level for the particular chemical(s) analyzed.
- 6.3.2 DNREC-SIRS recommends analysis of EPA's Target Analyte List (TAL) and Target Compound List (TCL) of chemicals, and any other chemicals that may be present because of the operational history of the facility.
- 6.4 Reporting levels for Groundwater
- 6.4.1 DNREC-SIRS reporting levels for groundwater are primarily based on the Delaware or federal Maximum Contaminant Level (MCL) for drinking water. Some contaminants have a Delaware MCL, a federal MCL, or both. In the instances where there is both a Delaware and federal MCL, the more conservative level is listed in the DNREC-SIRS reporting level table. EPA's Health Advisory Level (May 2016) was adopted as the reporting level for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic acid (PFOA). When both PFOS and PFOA are detected in groundwater, the combined concentrations of PFOS and

PFOA should be compared to the Health Advisory Level. Otherwise, groundwater sample results should be compared to the groundwater reporting level for the particular chemical(s) analyzed.

- 6.4.2 DNREC-SIRS recommends analysis of EPA's TAL and TCL of chemicals, and any other chemicals that may be present because of the operational history of the facility.

#### 6.5 Comparing sample results to reporting levels

- 6.5.1 After soil and/or groundwater samples are collected from a facility, the individual sample results should be compared to the reporting levels listed in the most recent table provided by DNREC-SIRS in Appendix A of this guidance and on the SIRS webpage.

- 6.5.2 In general, samples that are field-screened only should be compared to the reporting levels and DNREC-SIRS should be notified if there is an exceedance of a reporting level and if land disturbing activities will occur. If a sample or samples were field-screened and exceed a reporting level, the owner or operator has the option to send those samples to a HSCA-approved laboratory for confirmatory analysis. If the results from the HSCA-approved laboratory do not exceed the reporting level, then DNREC-SIRS does not need to be notified of these sample results.

- 6.5.3 Below are two examples comparing sample results to DNREC-SIRS reporting levels:

- 6.5.3.1 Example 1 – A Phase II ESA was conducted and soil and groundwater samples were collected from the property. Table 1A and 1B show some of the soil and groundwater sample results from the Phase II ESA, as compared to DNREC-SIRS reporting levels for soil and groundwater, respectively. Based on this data, one or more soil samples exceed the reporting level for trichloroethylene, benz(a)anthracene, and benzo(a)pyrene. One groundwater sample is equal to the reporting level for trichloroethylene. Prior to undertaking any land disturbing activities, the owner or operator must notify DNREC-SIRS in writing that these particular hazardous substances are at or above the reporting level for soil and groundwater.

**Table 1A: Soil Sample Results compared to DNREC-SIRS Reporting Levels for Soil**

Sample Name		SB01S	SB01D	SB02S
Sample Date		4/7/2013	4/7/2013	4/7/2013
Unit		mg/kg	mg/kg	mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Tetrachloroethylene	86	ND	ND	ND
Trichloroethylene	4.4	2	<b>6</b>	ND
Anthracene	17,000	1.7	ND	0.46
Benz[a]anthracene	1.5	<b>1.9</b>	ND	1
Benzo[a]pyrene	0.15	<b>1.9</b>	ND	<b>1.1</b>

*ND = not detected; Bold and Shaded = meets or exceeds reporting level; mg/kg = milligrams per kilogram*

**Table 1B: Groundwater Sample Results compared to DNREC-SIRS Reporting Levels for Groundwater**

Sample Name		MW01	MW02	MW03
Sample Date		4/17/2013	4/17/2013	4/17/2013
Unit		ug/l	ug/l	ug/l
Chemical Name	Groundwater Reporting Level (ug/l)			
Benzene	5	2	ND	1.1
Tetrachloroethylene	1	ND	ND	ND
Trichloroethylene	1	<b>3.2</b>	<b>5</b>	<b>1</b>

*ND = not detected; Bold and Shaded = meets or exceeds reporting level; ug/l = micrograms per liter*

6.5.3.2 Example 2 – A limited soil investigation was conducted and soil was analyzed for metals using a field XRF instrument. Table 2A shows some of the results of screening the soil samples with a field XRF instrument. These results were compared to DNREC-SIRS reporting levels and all three samples exceeded the reporting level for arsenic. These exceedances would need to be reported to DNREC-SIRS prior to undertaking land disturbing activities. However, all of the same samples were also sent to a lab for confirmatory analysis (Table 2B), which revealed that none of the soil samples exceeded the reporting level for arsenic (or any other analyte). Results from the XRF instrument were biased high. Therefore, DNREC-SIRS does not need to be notified of these sample results.

**Table 2A: Soil Sample Results, field-screened with XRF, compared to DNREC-SIRS Reporting Levels for Soil**

Sample Name		SO-01	SO-02	SO-03
Sample Date		4/7/2013	4/7/2013	4/7/2013
Unit		mg/kg	mg/kg	mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Antimony	31	2.3	ND	ND
Arsenic	11	<b>15</b>	<b>28</b>	<b>19</b>
Barium	15,000	1119	1320	1282
Iron	74,767	47,800	53,000	52,000
Lead	400	73	37	66.1

*ND = not detected; Bold and Shaded = meets or exceeds reporting level; mg/kg = milligrams per kilogram*

**Table 2B: Soil Sample Results, sent to confirmatory laboratory, compared to DNREC-SIRS Reporting Levels for Soil**

Sample Name		SO-01	SO-02	SO-03
Sample Date		4/7/2013	4/7/2013	4/7/2013
Unit		mg/kg	mg/kg	mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Antimony	31	ND	ND	ND
Arsenic	11	6.7	10	9.6
Barium	15,000	273	298	307
Iron	74,767	47,800	53,000	52,000
Lead	400	26	10.5	24.6

*ND = not detected; mg/kg = milligrams per kilogram*

## 6.6 Updates to the Reporting Level Table

- 6.6.1 The reporting level table will be updated as significant changes occur, and the updated table will be available on the SIRS webpage ([http://www.dnrec.delaware.gov/whs/awm/SIRB/Pages/SIRB\\_Laws\\_Regulations\\_Guidance\\_Policies.aspx](http://www.dnrec.delaware.gov/whs/awm/SIRB/Pages/SIRB_Laws_Regulations_Guidance_Policies.aspx)). Analytes may be added or deleted from the table. Therefore, please ensure that you are using the most current version of the reporting level table, available in Appendix A of this guidance and on the SIRS webpage. The analytes with concentrations that have been updated between the previous version and the current version of the reporting level table will be indicated. The date of the most recent revision will be listed in the heading of the table.

## 7.0 Procedure after the Department Receives Notification

The course of actions that the Department will take after notification will vary based on the way the notification was received and are described separately.

### 7.1 Notification Prior to undertaking land disturbing activities

7.1.1 If the owner or operator, Brownfield developer, or his representative, notified DNREC-SIRS in writing, of a release of a hazardous substance with concentrations at or above the reporting levels, at least 30 days before undertaking land disturbing activities in any area(s) potentially affected by the release at the property, then the following steps are taken:

- Step 1: DNREC-SIRS performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.
- Step 2: If no action is needed, DNREC-SIRS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-SIRS sends a letter notifying the owner or operator of the program under which the facility will be addressed.
- Step 3: If further action is needed, DNREC-SIRS assigns a tracking number (DE number) and a project officer for the site.
- Step 4: DNREC-SIRS enters into a letter agreement with the owner or operator.
- Step 5: DNREC-SIRS performs a full review of the available information for the site and determines whether the Phase II ESA is equivalent to a Facility Evaluation and if adequate data is present to perform an initial screening or if additional data is needed.
- Step 6: If there is adequate data, DNREC-SIRS and the owner or operator will agree that an initial screening will be performed by a HSCA certified consultant or DNREC-SIRS.
- Step 7: If additional data is needed, DNREC-SIRS will require the owner or operator to collect additional data and perform an initial screening using a HSCA certified consultant under the letter agreement. The owner or operator may choose to bypass this step and proceed through the HSCA process to receive a Certificate of Completion of Remedy (COCR) for the facility under the Voluntary Cleanup Program (VCP) or Brownfields Development Program (BDP).
- Step 8: If the initial screening indicates that the release does not exceed acceptable risk, then DNREC-SIRS issues a Conditional No Further Action. If the initial screening exceeds the acceptable risk, then the owner or operator must enter into a settlement agreement with DNREC-SIRS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

7.2 Notification during land disturbing activities

7.2.1 If evidence of a release, such as a stained soil, free product or buried materials, was discovered during land disturbing activities, the owner or operator must notify the 24 Hour Release Hotline (800-662-8802) within 24 hours of learning of the evidence of release, and the following steps are taken:

- Step 1: DNREC Emergency Prevention and Response Section (EPRS) visits the site and determines that (1) no action is needed; (2) action under DNREC-SIRS is needed and refers the facility to DNREC-SIRS; (3) immediate action is needed and requires the owner or operator to perform the action; (4) residual contamination is present after the immediate action and refers the facility to DNREC-SIRS; or (5) the site should be referred to a section other than DNREC-SIRS.
- Step 2: DNREC-SIRS receives notification from EPRS and performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.
- Step 3: If no action is needed, DNREC-SIRS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-SIRS sends a letter notifying the owner or operator of the program under which the facility will be addressed.
- Step 4: If further action is needed, DNREC-SIRS assigns a tracking number (DE number) and a project officer for the site. One of the following will occur:
- (1) DNREC-SIRS enters into a letter agreement with the owner or operator for DNREC-SIRS to provide oversight of a Facility Evaluation (FE) and an initial screening performed by a HSCA certified consultant.
  - (2) DNREC-SIRS determines that the action taken by EPRS meets the interim action definition under the Regulations Governing Hazardous Substance Cleanup and the site proceeds through the HSCA process to receive a COCR under the VCP or BDP.
- Step 5: DNREC-SIRS reviews the FE and the initial screening and approves the report. DNREC-SIRS determines that (1) the initial screening does not exceed the acceptable risk and issues a Conditional No Further Action; or (2) the initial screening exceeds the acceptable risk and the owner or operator must enter into a settlement agreement with DNREC-SIRS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

7.3 Notification by DNREC to the owner or operator

7.3.1 If DNREC-SIRS becomes aware of a release that exceeds a reporting level or evidence of a release, such as stained soil, free product or buried materials, the following steps are taken:

- Step 1: DNREC-SIRS contacts the owner or operator and collects additional information, including whether the owner is planning on undertaking land disturbing activities.
- Step 2: DNREC-SIRS performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.
- Step 3: If no action is needed, DNREC-SIRS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-SIRS sends a letter notifying the owner or operator of the program under which the facility will be addressed.
- Step 4: If further action is needed, DNREC-SIRS assigns a tracking number (DE number) and a project officer for the site.
- Step 5: DNREC-SIRS enters into a letter agreement with the owner or operator for DNREC-SIRS to provide oversight of a Facility Evaluation (FE) and an initial screening performed by a HSCA certified consultant.
- Step 6: DNREC-SIRS reviews the FE and the initial screening and approves the report. DNREC-SIRS determines that (1) the initial screening does not exceed the acceptable risk and issues a Conditional No Further Action; or (2) the initial screening exceeds the acceptable risk and the owner or operator must enter into a settlement agreement with DNREC-SIRS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

**8.0 Penalty for Failure to Notify**

- 8.1 If an owner or operator fails to notify DNREC-SIRS of hazardous substances at or above reporting levels prior to undertaking land disturbing activities or fails to notify DNREC-SIRS or EPRS of evidence of a release during land disturbing activities, then a Public Hearing will occur and the Department may issue a Secretary's Order to the owner or operator.
- 8.2 Under HSCA §9109(f), the Secretary has the authority to issue an order to anyone who fails to report a release as required by the regulations. If an owner or operator fails to comply with the Secretary's order, they may be subject to a civil penalty of up to \$10,000 per day for each day of non-compliance.

**Appendix A**  
Reporting Level Table  
Updated July 2016

## DNREC-SIRS REPORTING LEVEL TABLE – LAST UPDATED JULY 2016

### Changes to the DNREC-SIRS Reporting Level Table in July 2016:

1. The following compounds were newly added to the reporting level table due to changes in the EPA Regional Screening Level table (with TR = 1E-06 and THQ = 1) in May 2016:

<u>Analyte</u>	<u>CAS No.</u>
Thallic Oxide	1314-32-5
Thallium Selenite	12039-52-0
Toluene-2,4-diisocyanate	584-84-9
Toluene-2,6-diisocyanate	91-08-7
Toluidine, o- (Methylaniline, 2-)	95-53-4

2. The following analyte name was updated due to a change in the EPA Regional Screening Level table (with TR = 1E-06 and THQ = 0.1) in May 2016:

Propanediol, 1,2- (114-26-1) changed to Phenol, 2-(1-methylethoxy)-, methylcarbamate.

3. ~Butyl Benzyl Phthalate (85-68-7) changed position in the DNREC-SIRS Reporting Level Table and can now be found under the group header Phthalates.

4. The following compounds had soil reporting levels which changed due to changes in the EPA Regional Screening Level table (with TR = 1E-06 and THQ = 1) in May 2016.

Both the old and new concentrations are listed below:

<u>Analyte</u>	<u>CAS No.</u>	<u>Old Conc. (mg/kg)</u>	<u>New Conc. (mg/kg)</u>
Benzaldehyde	100-52-7	7800 (RSL)	1700 (M-RSL)
Chloronitrobenzene, p-	100-00-5	63 (RSL)	44 (NCL)
~Cyanide (CN-)	57-12-5	2.7	23
Dimethylvinylchloride	513-37-1	2	11
~Lead acetate	301-04-2	19	640
Thallium (I) Nitrate	10102-45-1	0.55	0.78
Thallium Acetate	563-68-8	0.47	0.78
Thallium Chloride	7791-12-0	0.47	0.78

The keys describing some of the soil reporting levels (i.e. BTV, PYR, DRO, GRO) also changed slightly.

5. The following analytes had groundwater reporting levels which changed due to changes in the EPA Health Advisory Level in May 2016. When both PFOS and PFOA are detected in groundwater, the combined concentrations of PFOS and PFOA should be compared to the Health Advisory Level. Both the old and new concentrations are listed below:

<u>Analyte</u>	<u>CAS No.</u>	<u>Old Conc. (ug/l)</u>	<u>New Conc. (ug/l)</u>
Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.2	0.07
Perfluorooctanoic acid (PFOA)	335-67-1	0.4	0.07

6. For administrative purposes only, DNREC-SIRS added an identifier in the CAS number column for all analytes where the CAS number was listed as NA in the EPA RSL table.

## DNREC-SIRS REPORTING LEVEL TABLE – LAST UPDATED JULY 2016

The reporting level table is arranged in the following manner:

1. Analyte is indicated in column 1.
2. Whether the analyte is carcinogenic or non-carcinogenic is indicated in column 2.
3. Chemical Abstracts Service (CAS) registry number corresponding to the analyte is indicated in column 3. If a CAS number is not available for an analyte, another identifier may be indicated in this column for administrative purposes only.
4. If analyte is part of EPA's Target Analyte List (TAL) or Target Compound List (TCL), 'TAL' or 'TCL' is indicated in column 4.
5. Reporting level for soil is indicated in milligrams per kilogram (mg/kg) in column 5.
6. Key describing how soil reporting level was derived is included in column 6.
7. Reporting level for groundwater is indicated in micrograms per liter (ug/l) in column 7.

The groundwater reporting levels were primarily based on the Federal or Delaware Maximum Contaminant Levels (MCLs), however EPA's Health Advisory Level (May 2016) was adopted as the reporting level for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic acid (PFOA). When both PFOS and PFOA are detected in groundwater, the combined concentrations of PFOS and PFOA should be compared to the Health Advisory Level. The keys which describe how the soil reporting levels were derived are defined as follows:

**RSL:** EPA Regional Screening Level from May 2016 (with TR = 1E-06 and THQ = 1);

**M-RSL:** Modified EPA RSL by multiplying by 10 to equal a target cancer risk of 1E-05;

**NCL:** Non-cancer target level for a hazard quotient of 1 was lower than the target level at the 1E-05 cancer risk level, so the more conservative concentration, corresponding to a hazard quotient of 1, was adopted;

**BTV:** Background Threshold Value was calculated based on samples from Delaware background studies. The concentration is either an Upper Threshold Limit (UTL) 95/95 (for metals) or a 95% Upper Simultaneous Limit (USL) (for PAHs) with the exception of Arsenic. Arsenic's background concentration was established previously;

**Csat:** Soil saturation concentration was adopted as the reporting level. Above this concentration the contaminant may be present in free phase;

**MAG:** Massachusetts guidance for petroleum hydrocarbons was adopted as the reporting level;

**MAX:** Maximum ceiling value was adopted as the reporting level;

**EPAR4:** EPA Region 4 Residential Soil Screening Level (November 2009) was adopted as the reporting level;

## DNREC-SIRS REPORTING LEVEL TABLE – LAST UPDATED JULY 2016

**PYR:** EPA RSL for Pyrene was adopted as the reporting level for Phenanthrene, although Phenanthrene is not included within the EPA RSL table;

**DRO:** DNREC-Tank Management Section (TMS) Tier 0 action level for TPH-DRO was adopted as the reporting level;

**GRO:** DNREC-Tank Management Section (TMS) Tier 0 action level for TPH-GRO was adopted as the reporting level;

**ug/l:** micrograms per liter;

**mg/kg:** milligrams per kilogram;

**TAL:** EPA Target Analyte List for Metals and Cyanide;

**TCL:** EPA Target Compound Compound List for Volatile Compounds, Semivolatile Compounds, and Pesticides/Aroclors

---: No soil or groundwater reporting level is available.

**Note:** RSL is EPA's Regional Screening Level from May 2016 found at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>.

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Acephate	30560-19-1	n		247	NCL	
Acetaldehyde	75-07-0	n		81.8	NCL	
Acetochlor	34256-82-1	n		1300	RSL	
Acetone	67-64-1	n	TCL	61000	RSL	
Acetone Cyanohydrin	75-86-5	n		100000	MAX	
Acetonitrile	75-05-8	n		810	RSL	
Acetophenone	98-86-2	n	TCL	7800	RSL	
Acetylaminofluorene, 2-	53-96-3	c		1.4	M-RSL	
Acrolein	107-02-8	n		0.14	RSL	
Acrylamide	79-06-1	c		2.4	M-RSL	
Acrylic Acid	79-10-7	n		99	RSL	
Acrylonitrile	107-13-1	c		2.5	M-RSL	
Adiponitrile	111-69-3	n		17700	Csat	
Alachlor	15972-60-8	c		97	M-RSL	2
Aldicarb	116-06-3	n		63	RSL	3
Aldicarb Sulfone	1646-88-4	n		63	RSL	2
Aldicarb sulfoxide	1646-87-3			---		4
Aldrin	309-00-2	c	TCL	0.39	M-RSL	
Allyl Alcohol	107-18-6	n		3.5	RSL	
Allyl Chloride	107-05-1	n		1.65	NCL	
Aluminum	7429-90-5	n	TAL	77000	RSL	
Aluminum Phosphide	20859-73-8	n		31	RSL	
Ametryn	834-12-8	n		570	RSL	
Aminobiphenyl, 4-	92-67-1	c		0.26	M-RSL	
Aminophenol, m-	591-27-5	n		5100	RSL	
Aminophenol, p-	123-30-8	n		1300	RSL	
Amitraz	33089-61-1	n		160	RSL	
Ammonium Sulfamate	7773-06-0	n		16000	RSL	
Amyl Alcohol, tert-	75-85-4	n		82	RSL	
Aniline	62-53-3	n		431	NCL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Anthraquinone, 9,10-	84-65-1	n		123	NCL	
Antimony (metallic)	7440-36-0	n	TAL	31	RSL	6
Antimony Pentoxide	1314-60-9	n		39	RSL	
Antimony Tetroxide	1332-81-6	n		31	RSL	
Antimony Trioxide	1309-64-4	n		50000	MAX	
Arsenic, Inorganic	7440-38-2	c	TAL	11	BTV	10
Arsine	7784-42-1	n		0.27	RSL	
Asulam	3337-71-1	n		3200	RSL	
Atrazine	1912-24-9	c	TCL	24	M-RSL	3
Auramine	492-80-8	c		6.2	M-RSL	
Avermectin B1	65195-55-3	n		25	RSL	
Azinphos-methyl	86-50-0	n		190	RSL	
Azobenzene	103-33-3	c		56	M-RSL	
Azodicarbonamide	123-77-3	n		8600	RSL	
Barium	7440-39-3	n	TAL	15000	RSL	2000
Barium Chromate	10294-40-3	c		3	M-RSL	
Benfluralin	1861-40-1	n		23000	RSL	
Benomyl	17804-35-2	n		3200	RSL	
Bensulfuron methyl	83055-99-6	n		13000	RSL	
Bentazon	25057-89-0	n		1900	RSL	
Benzaldehyde	100-52-7	c	TCL	1700	M-RSL	
Benzene	71-43-2	c	TCL	12	M-RSL	5
Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	n		18.5	NCL	
Benzenethiol	108-98-5	n		78	RSL	
Benzidine	92-87-5	c		0.0053	M-RSL	
Benzoic Acid	65-85-0	n		100000	MAX	
Benzotrichloride	98-07-7	c		0.53	M-RSL	
Benzyl Alcohol	100-51-6	n		6300	RSL	
Benzyl Chloride	100-44-7	c		11	M-RSL	
Beryllium and compounds	7440-41-7	n	TAL	160	RSL	4
Bifenox	42576-02-3	n		570	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
Biphenthrin	82657-04-3	n		950	RSL	
Biphenyl, 1,1'-	92-52-4	n	TCL	47	RSL	
Bis(2-chloro-1-methylethyl) ether	108-60-1	n	TCL	3100	RSL	
Bis(2-chloroethoxy)methane	111-91-1	n	TCL	190	RSL	
Bis(2-chloroethyl)ether	111-44-4	c	TCL	2.3	M-RSL	
Bis(chloromethyl)ether	542-88-1	c		0.00083	M-RSL	
Bisphenol A	80-05-7	n		3200	RSL	
Boron And Borates Only	7440-42-8	n		16000	RSL	
Boron Trichloride	10294-34-5	n		100000	MAX	
Boron Trifluoride	7637-07-2	n		3100	RSL	
Bromate	15541-45-4	c		9.9	M-RSL	10
Bromo-2-chloroethane, 1-	107-04-0	c		0.26	M-RSL	
Bromobenzene	108-86-1	n		290	RSL	
Bromochloromethane	74-97-5	n	TCL	150	RSL	
Bromodichloromethane	75-27-4	c	TCL	2.9	M-RSL	80
Bromoform	75-25-2	c	TCL	190	M-RSL	80
Bromomethane	74-83-9	n	TCL	6.8	RSL	
Bromophos	2104-96-3	n		390	RSL	
Bromoxynil	1689-84-5	n		1300	RSL	
Bromoxynil Octanoate	1689-99-2	n		1600	RSL	
Butadiene, 1,3-	106-99-0	c		0.58	M-RSL	
Butanol, N-	71-36-3	n		7800	RSL	
Butyl alcohol, sec-	78-92-2	n		21300	Csat	
Butylate	2008-41-5	n		3900	RSL	
Butylated hydroxyanisole	25013-16-5	c		27000	M-RSL	
Butylated hydroxytoluene	128-37-0	c		1500	M-RSL	
Butylbenzene, n-	104-51-8	n		3900	RSL	
Butylbenzene, sec-	135-98-8	n		7800	RSL	
Butylbenzene, tert-	98-06-6	n		7800	RSL	
Cacodylic Acid	75-60-5	n		1300	RSL	
Cadmium	7440-43-9	n	TAL	71	RSL	5

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Calcium Chromate	13765-19-0	c		3	M-RSL	
Caprolactam	105-60-2	n	TCL	31000	RSL	
Captafol	2425-06-1	c		36	M-RSL	
Captan	133-06-2	c		2400	M-RSL	
Carbaryl	63-25-2	n		6300	RSL	
Carbofuran	1563-66-2	n		320	RSL	40
Carbon Disulfide	75-15-0	n	TCL	770	RSL	
Carbon Tetrachloride	56-23-5	c	TCL	6.5	M-RSL	5
Carbonyl Sulfide	463-58-1	n		67	RSL	
Carbosulfan	55285-14-8	n		630	RSL	
Carboxin	5234-68-4	n		6300	RSL	
Ceric oxide	1306-38-3	n		100000	MAX	
Chloral Hydrate	302-17-0	n		7800	RSL	
Chloramben	133-90-4	n		950	RSL	
Chloranil	118-75-2	c		13	M-RSL	
Chlordane	12789-03-6	c		17	M-RSL	2
Chlordecone (Kepone)	143-50-0	c		0.54	M-RSL	
Chlorfenvinphos	470-90-6	n		44	RSL	
Chlorimuron, Ethyl-	90982-32-4	n		1300	RSL	
Chlorine	7782-50-5	n		0.18	RSL	
Chlorine Dioxide	10049-04-4	n		2300	RSL	
Chlorite (Sodium Salt)	7758-19-2	n		2300	RSL	1000
Chloro-1,1-difluoroethane, 1-	75-68-3	n		54000	RSL	
Chloro-1,3-butadiene, 2-	126-99-8	c		0.1	M-RSL	
Chloro-2-methylaniline HCl, 4-	3165-93-3	c		12	M-RSL	
Chloro-2-methylaniline, 4-	95-69-2	c		54	M-RSL	
Chloroacetaldehyde, 2-	107-20-0	c		26	M-RSL	
Chloroacetic Acid	79-11-8	n		---		60
Chloroacetophenone, 2-	532-27-4	n		43000	RSL	
Chloroaniline, p-	106-47-8	c	TCL	27	M-RSL	
Chlorobenzene	108-90-7	n	TCL	280	RSL	100

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Chlorobenzilate	510-15-6	c		49	M-RSL	
Chlorobenzoic Acid, p-	74-11-3	n		1900	RSL	
Chlorobenzotrifluoride, 4-	98-56-6	n		210	RSL	
Chlorobutane, 1-	109-69-3	n		3100	RSL	
Chlorodifluoromethane	75-45-6	n		49000	RSL	
Chloroethanol, 2-	107-07-3	n		1600	RSL	
Chloroform	67-66-3	c	TCL	3.2	M-RSL	80
Chloromethane	74-87-3	n	TCL	110	RSL	
Chloromethyl Methyl Ether	107-30-2	c		0.2	M-RSL	
Chloronitrobenzene, o-	88-73-3	c		18	M-RSL	
Chloronitrobenzene, p-	100-00-5	n		44	NCL	
Chlorophenol, 2-	95-57-8	n	TCL	390	RSL	
Chloropicrin	76-06-2	n		2	RSL	
Chlorothalonil	1897-45-6	n		925	NCL	
Chlorotoluene, o-	95-49-8	n		1600	RSL	
Chlorotoluene, p-	106-43-4	n		1600	RSL	
Chlorozotocin	54749-90-5	c		0.023	M-RSL	
Chlorpropham	101-21-3	n		13000	RSL	
Chlorpyrifos	2921-88-2	n		63	RSL	
Chlorpyrifos Methyl	5598-13-0	n		630	RSL	
Chlorsulfuron	64902-72-3	n		3200	RSL	
Chlorthal-dimethyl	1861-32-1	n		630	RSL	
Chlorthiophos	60238-56-4	n		51	RSL	
Chromium(III), Insoluble Salts	16065-83-1	n		50000	MAX	
Chromium(VI)	18540-29-9	c		3	M-RSL	
Chromium, Total	7440-47-3		TAL	214	BTV	100
Clofentezine	74115-24-5	n		820	RSL	
Cobalt	7440-48-4	n	TAL	34	BTV	
Copper	7440-50-8	n	TAL	3100	RSL	1300
Cresol, m-	108-39-4	n		3200	RSL	
Cresol, o-	95-48-7	n	TCL	3200	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Cresol, p-	106-44-5	n	TCL	6300	RSL	
Cresol, p-chloro-m-	59-50-7	n	TCL	6300	RSL	
Cresols	1319-77-3	n		6300	RSL	
Crotonaldehyde, trans-	123-73-9	c		3.7	M-RSL	
Cumene	98-82-8	n	TCL	1900	RSL	
Cupferron	135-20-6	c		25	M-RSL	
Cyanazine	21725-46-2	c		6.5	M-RSL	
<b>Cyanides</b>						
~Calcium Cyanide	592-01-8	n		78	RSL	
~Copper Cyanide	544-92-3	n		390	RSL	
~Cyanide (CN-)	57-12-5	n	TAL	23	RSL	200
~Cyanogen	460-19-5	n		78	RSL	
~Cyanogen Bromide	506-68-3	n		7000	RSL	
~Cyanogen Chloride	506-77-4	n		3900	RSL	
~Hydrogen Cyanide	74-90-8	n		23	RSL	
~Potassium Cyanide	151-50-8	n		160	RSL	
~Potassium Silver Cyanide	506-61-6	n		390	RSL	
~Silver Cyanide	506-64-9	n		7800	RSL	
~Sodium Cyanide	143-33-9	n		78	RSL	200
~Thiocyanates	Thiocyanates	n		16	RSL	
~Thiocyanic Acid	463-56-9	n		16	RSL	
~Zinc Cyanide	557-21-1	n		3900	RSL	
Cyclohexane	110-82-7	n	TCL	6500	RSL	
Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	c		240	M-RSL	
Cyclohexanone	108-94-1	n		5110	Csat	
Cyclohexene	110-83-8	n		310	RSL	
Cyclohexylamine	108-91-8	n		16000	RSL	
Cyfluthrin	68359-37-5	n		1600	RSL	
Cyhalothrin	68085-85-8	n		320	RSL	
Cypermethrin	52315-07-8	n		630	RSL	
Cyromazine	66215-27-8	n		470	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
DDD	72-54-8	c	TCL	23	M-RSL	
DDE, p,p'-	72-55-9	c	TCL	20	M-RSL	
DDT	50-29-3	c	TCL	19	M-RSL	
Dalapon	75-99-0	n		1900	RSL	200
Daminozide	1596-84-5	c		300	M-RSL	
Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	n		440	RSL	
Demeton	8065-48-3	n		2.5	RSL	
Di(2-ethylhexyl)adipate	103-23-1	c		4500	M-RSL	400
Diallate	2303-16-4	c		89	M-RSL	
Diazinon	333-41-5	n		44	RSL	
Dibenzothiophene	132-65-0	n		780	RSL	
Dibromo-3-chloropropane, 1,2-	96-12-8	c	TCL	0.053	M-RSL	0.2
Dibromobenzene, 1,3-	108-36-1	n		31	RSL	
Dibromobenzene, 1,4-	106-37-6	n		780	RSL	
Dibromochloromethane	124-48-1	c	TCL	83	M-RSL	80
Dibromoethane, 1,2-	106-93-4	c	TCL	0.36	M-RSL	0.05
Dibromomethane (Methylene Bromide)	74-95-3	n		24	RSL	
Dibutyltin Compounds	Dibutyltin	n		19	RSL	
Dicamba	1918-00-9	n		1900	RSL	
Dichloro-2-butene, 1,4-	764-41-0	c		0.021	M-RSL	
Dichloro-2-butene, cis-1,4-	1476-11-5	c		0.074	M-RSL	
Dichloro-2-butene, trans-1,4-	110-57-6	c		0.074	M-RSL	
Dichloroacetic Acid	79-43-6	c		110	M-RSL	60
Dichlorobenzene, 1,2-	95-50-1	n	TCL	1800	RSL	600
Dichlorobenzene, 1,4-	106-46-7	c	TCL	26	M-RSL	75
Dichlorobenzidine, 3,3'-	91-94-1	c	TCL	12	M-RSL	
Dichlorobenzophenone, 4,4'-	90-98-2	n		570	RSL	
Dichlorodifluoromethane	75-71-8	n	TCL	87	RSL	
Dichloroethane, 1,1-	75-34-3	c	TCL	36	M-RSL	
Dichloroethane, 1,2-	107-06-2	c	TCL	4.6	M-RSL	5
Dichloroethylene, 1,1-	75-35-4	n	TCL	230	RSL	7

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
Dichloroethylene, 1,2-cis-	156-59-2	n	TCL	160	RSL	70
Dichloroethylene, 1,2-trans-	156-60-5	n	TCL	1600	RSL	100
Dichlorophenol, 2,4-	120-83-2	n	TCL	190	RSL	
Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	n		700	RSL	70
Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6	n		510	RSL	
Dichloropropane, 1,2-	78-87-5	c	TCL	10	M-RSL	5
Dichloropropane, 1,3-	142-28-9	n		1600	RSL	
Dichloropropanol, 2,3-	616-23-9	n		190	RSL	
Dichloropropene, 1,3-	542-75-6	c		18	M-RSL	
Dichlorvos	62-73-7	c		19	M-RSL	
Dicrotophos	141-66-2	n		6.3	RSL	
Dicyclopentadiene	77-73-6	n		1.3	RSL	
Dieldrin	60-57-1	c	TCL	0.34	M-RSL	
Diethanolamine	111-42-2	n		130	RSL	
Diethylene Glycol Monobutyl Ether	112-34-5	n		1900	RSL	
Diethylene Glycol Monoethyl Ether	111-90-0	n		3800	RSL	
Diethylformamide	617-84-5	n		78	RSL	
Diethylstilbestrol	56-53-1	c		0.016	M-RSL	
Difenzoquat	43222-48-6	n		5100	RSL	
Diflubenzuron	35367-38-5	n		1300	RSL	
Difluoroethane, 1,1-	75-37-6	n		48000	RSL	
Dihydrosafrole	94-58-6	c		99	M-RSL	
Diisopropyl Ether	108-20-3	n		2200	RSL	
Diisopropyl Methylphosphonate	1445-75-6	n		6300	RSL	
Dimethipin	55290-64-7	n		1300	RSL	
Dimethoate	60-51-5	n		13	RSL	
Dimethoxybenzidine, 3,3'-	119-90-4	c		3.4	M-RSL	
Dimethyl methylphosphonate	756-79-6	c		3200	M-RSL	
Dimethylamino azobenzene [p-]	60-11-7	c		1.2	M-RSL	
Dimethylaniline HCl, 2,4-	21436-96-4	c		9.4	M-RSL	
Dimethylaniline, 2,4-	95-68-1	c		27	M-RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Dimethylaniline, N,N-	121-69-7	n		160	RSL	
Dimethylbenzidine, 3,3'-	119-93-7	c		0.49	M-RSL	
Dimethylformamide	68-12-2	n		2600	RSL	
Dimethylhydrazine, 1,1-	57-14-7	n		0.057	RSL	
Dimethylhydrazine, 1,2-	540-73-8	c		0.0088	M-RSL	
Dimethylphenol, 2,4-	105-67-9	n	TCL	1300	RSL	
Dimethylphenol, 2,6-	576-26-1	n		38	RSL	
Dimethylphenol, 3,4-	95-65-8	n		63	RSL	
Dimethylvinylchloride	513-37-1	c		11	M-RSL	
Dinitro-o-cresol, 4,6-	534-52-1	n	TCL	5.1	RSL	
Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	n		130	RSL	
Dinitrobenzene, 1,2-	528-29-0	n		6.3	RSL	
Dinitrobenzene, 1,3-	99-65-0	n		6.3	RSL	
Dinitrobenzene, 1,4-	100-25-4	n		6.3	RSL	
Dinitrophenol, 2,4-	51-28-5	n	TCL	130	RSL	
Dinitrotoluene Mixture, 2,4/2,6-	DNT-Mix	c		8	M-RSL	
Dinitrotoluene, 2,4-	121-14-2	c	TCL	17	M-RSL	
Dinitrotoluene, 2,6-	606-20-2	c	TCL	3.6	M-RSL	
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	n		150	RSL	
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	n		150	RSL	
Dinitrotoluene, Technical grade	25321-14-6	c		12	M-RSL	
Dinoseb	88-85-7	n		63	RSL	7
Dioxane, 1,4-	123-91-1	c	TCL	53	M-RSL	
<b>Dioxins</b>						
~Hexachlorodibenzo-p-dioxin, Mixture	HXCDD	c		0.001	M-RSL	
~TCDD, 2,3,7,8-	1746-01-6	c		0.000048	M-RSL	0.00003
Diphenamid	957-51-7	n		1900	RSL	
Diphenyl Sulfone	127-63-9	n		51	RSL	
Diphenylamine	122-39-4	n		1600	RSL	
Diphenylhydrazine, 1,2-	122-66-7	c		6.8	M-RSL	
Diquat	85-00-7	n		140	RSL	20

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Direct Black 38	1937-37-7	c		0.76	M-RSL	
Direct Blue 6	2602-46-2	c		0.73	M-RSL	
Direct Brown 95	16071-86-6	c		0.81	M-RSL	
Disulfoton	298-04-4	n		2.5	RSL	
Dithiane, 1,4-	505-29-3	n		780	RSL	
Diuron	330-54-1	n		130	RSL	
Dodine	2439-10-3	n		250	RSL	
EPTC	759-94-4	n		2000	RSL	
Endosulfan	115-29-7	n		470	RSL	
Endothall	145-73-3	n		1300	RSL	100
Endrin	72-20-8	n	TCL	19	RSL	2
Epichlorohydrin	106-89-8	n		19	RSL	
Epoxybutane, 1,2-	106-88-7	n		160	RSL	
Ethanol, 2-(2-methoxyethoxy)-	111-77-3	n		2500	RSL	
Ethephon	16672-87-0	n		320	RSL	
Ethion	563-12-2	n		32	RSL	
Ethoxyethanol Acetate, 2-	111-15-9	n		2600	RSL	
Ethoxyethanol, 2-	110-80-5	n		5200	RSL	
Ethyl Acetate	141-78-6	n		620	RSL	
Ethyl Acrylate	140-88-5	n		47	RSL	
Ethyl Chloride (Chloroethane)	75-00-3	n	TCL	14000	RSL	
Ethyl Ether	60-29-7	n		16000	RSL	
Ethyl Methacrylate	97-63-2	n		1800	RSL	
Ethyl-p-nitrophenyl Phosphonate	2104-64-5	n		0.63	RSL	
Ethylbenzene	100-41-4	c	TCL	58	M-RSL	700
Ethylene Cyanohydrin	109-78-4	n		4400	RSL	
Ethylene Diamine	107-15-3	n		7000	RSL	
Ethylene Glycol	107-21-1	n		100000	MAX	
Ethylene Glycol Monobutyl Ether	111-76-2	n		6300	RSL	
Ethylene Oxide	75-21-8	c		1.8	M-RSL	
Ethylene Thiourea	96-45-7	n		5.1	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
Ethyleneimine	151-56-4	c		0.027	M-RSL	
Ethylphthalyl Ethyl Glycolate	84-72-0	n		100000	MAX	
Fenamiphos	22224-92-6	n		16	RSL	
Fenpropathrin	39515-41-8	n		1600	RSL	
Fenvalerate	51630-58-1	n		1600	RSL	
Fluometuron	2164-17-2	n		820	RSL	
Fluoride	16984-48-8	n		3100	RSL	
Fluorine (Soluble Fluoride)	7782-41-4	n		4700	RSL	4000
Fluridone	59756-60-4	n		5100	RSL	
Flurprimidol	56425-91-3	n		1300	RSL	
Flusilazole	85509-19-9	n		44	RSL	
Flutolanil	66332-96-5	n		3800	RSL	
Fluvalinate	69409-94-5	n		630	RSL	
Folpet	133-07-3	c		1600	M-RSL	
Fomesafen	72178-02-0	c		29	M-RSL	
Fonofos	944-22-9	n		130	RSL	
Formaldehyde	50-00-0	c		170	M-RSL	
Formic Acid	64-18-6	n		29	RSL	
Fosetyl-AL	39148-24-8	n		100000	MAX	
<b>Furans</b>						
~Dibenzofuran	132-64-9	n	TCL	73	RSL	
~Furan	110-00-9	n		73	RSL	
~Tetrahydrofuran	109-99-9	n		18000	RSL	
Furazolidone	67-45-8	c		1.4	M-RSL	
Furfural	98-01-1	n		210	RSL	
Furium	531-82-8	c		3.6	M-RSL	
Furmecyclox	60568-05-0	c		180	M-RSL	
Glufosinate, Ammonium	77182-82-2	n		25	RSL	
Glutaraldehyde	111-30-8	n		75300	Csat	
Glycidyl	765-34-4	n		23	RSL	
Glyphosate	1071-83-6	n		6300	RSL	700

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Guanidine	113-00-8	n		780	RSL	
Guanidine Chloride	50-01-1	n		1300	RSL	
Haloxfop, Methyl	69806-40-2	n		3.2	RSL	
Heptachlor	76-44-8	c	TCL	1.3	M-RSL	0.4
Heptachlor Epoxide	1024-57-3	c	TCL	0.7	M-RSL	0.2
Hexabromobenzene	87-82-1	n		160	RSL	
Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	n		13	RSL	
Hexachlorobenzene	118-74-1	c	TCL	2.1	M-RSL	1
Hexachlorobutadiene	87-68-3	c	TCL	12	M-RSL	
Hexachlorocyclohexane, Alpha-	319-84-6	c	TCL	0.86	M-RSL	
Hexachlorocyclohexane, Beta-	319-85-7	c	TCL	3	M-RSL	
Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	c	TCL	5.7	M-RSL	0.2
Hexachlorocyclohexane, Technical	608-73-1	c		3	M-RSL	
Hexachlorocyclopentadiene	77-47-4	n	TCL	1.8	RSL	50
Hexachloroethane	67-72-1	c	TCL	18	M-RSL	
Hexachlorophene	70-30-4	n		19	RSL	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	c		61	M-RSL	
Hexamethylene Diisocyanate, 1,6-	822-06-0	n		3.1	RSL	
Hexamethylphosphoramide	680-31-9	n		25	RSL	
Hexane, N-	110-54-3	n		610	RSL	
Hexanedioic Acid	124-04-9	n		100000	MAX	
Hexanone, 2-	591-78-6	n	TCL	200	RSL	
Hexazinone	51235-04-2	n		2100	RSL	
Hexythiazox	78587-05-0	n		1600	RSL	
Hydramethylnon	67485-29-4	n		19	RSL	
Hydrazine	302-01-2	c		2.3	M-RSL	
Hydrazine Sulfate	10034-93-2	c		2.3	M-RSL	
Hydrogen Chloride	7647-01-0	n		100000	MAX	
Hydrogen Fluoride	7664-39-3	n		3100	RSL	
Hydrogen Sulfide	7783-06-4	n		100000	MAX	
Hydroquinone	123-31-9	c		90	M-RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Imazalil	35554-44-0	n		820	RSL	
Imazaquin	81335-37-7	n		16000	RSL	
Imazethapyr	81335-77-5	n		16000	RSL	
Iodine	7553-56-2	n		780	RSL	
Iprodione	36734-19-7	n		2500	RSL	
Iron	7439-89-6	n	TAL	74767	BTV	
Isobutyl Alcohol	78-83-1	n		23000	RSL	
Isophorone	78-59-1	c	TCL	5700	M-RSL	
Isopropalin	33820-53-0	n		1200	RSL	
Isopropanol	67-63-0	n		5600	RSL	
Isopropyl Methyl Phosphonic Acid	1832-54-8	n		6300	RSL	
Isoxaben	82558-50-7	n		3200	RSL	
Lactofen	77501-63-4	n		130	RSL	
<b>Lead Compounds</b>						
~Lead Chromate	7758-97-6	c		3	M-RSL	
~Lead Phosphate	7446-27-7	c		820	M-RSL	
~Lead acetate	301-04-2	c		640	M-RSL	
~Lead and Compounds	7439-92-1		TAL	400	RSL	15
~Lead subacetate	1335-32-6	c		640	M-RSL	
~Tetraethyl Lead	78-00-2	n		0.0078	RSL	
Lewisite	541-25-3	n		0.39	RSL	
Linuron	330-55-2	n		130	RSL	
Lithium	7439-93-2	n		160	RSL	
MCPA	94-74-6	n		32	RSL	
MCPB	94-81-5	n		630	RSL	
MCPP	93-65-2	n		63	RSL	
Malathion	121-75-5	n		1300	RSL	
Maleic Anhydride	108-31-6	n		6300	RSL	
Maleic Hydrazide	123-33-1	n		32000	RSL	
Malononitrile	109-77-3	n		6.3	RSL	
Mancozeb	8018-01-7	n		1900	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Maneb	12427-38-2	n		320	RSL	
Manganese	7439-96-5	n	TAL	2100	BTV	
Mephosfolan	950-10-7	n		5.7	RSL	
Mepiquat Chloride	24307-26-4	n		1900	RSL	
<b>Mercury Compounds</b>						
~Mercuric Chloride (and other Mercury salts)	7487-94-7	n		23	RSL	2
~Mercury (elemental)	7439-97-6	n	TAL	11	RSL	2
~Methyl Mercury	22967-92-6	n		7.8	RSL	
~Phenylmercuric Acetate	62-38-4	n		5.1	RSL	
Merphos	150-50-5	n		2.3	RSL	
Merphos Oxide	78-48-8	n		1.9	RSL	
Metalaxyl	57837-19-1	n		3800	RSL	
Methacrylonitrile	126-98-7	n		7.5	RSL	
Methamidophos	10265-92-6	n		3.2	RSL	
Methanol	67-56-1	n		100000	MAX	
Methidathion	950-37-8	n		63	RSL	
Methomyl	16752-77-5	n		1600	RSL	
Methoxy-5-nitroaniline, 2-	99-59-2	c		110	M-RSL	
Methoxychlor	72-43-5	n	TCL	320	RSL	40
Methoxyethanol Acetate, 2-	110-49-6	n		110	RSL	
Methoxyethanol, 2-	109-86-4	n		330	RSL	
Methyl Acetate	79-20-9	n	TCL	78000	RSL	
Methyl Acrylate	96-33-3	n		150	RSL	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	n	TCL	27000	RSL	
Methyl Hydrazine	60-34-4	n		1	NCL	
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	n	TCL	33000	RSL	
Methyl Isocyanate	624-83-9	n		4.6	RSL	
Methyl Methacrylate	80-62-6	n		4400	RSL	
Methyl Parathion	298-00-0	n		16	RSL	
Methyl Phosphonic Acid	993-13-5	n		3800	RSL	
Methyl Styrene (Mixed Isomers)	25013-15-4	n		320	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Methyl methanesulfonate	66-27-3	c		55	M-RSL	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	c	TCL	470	M-RSL	10
Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	n		19	RSL	
Methyl-5-Nitroaniline, 2-	99-55-8	c		600	M-RSL	
Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	c		0.65	M-RSL	
Methylaniline Hydrochloride, 2-	636-21-5	c		42	M-RSL	
Methylarsonic acid	124-58-3	n		630	RSL	
Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7	n		13	RSL	
Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	n		18.5	NCL	
Methylcholanthrene, 3-	56-49-5	c		0.055	M-RSL	
Methylene Chloride	75-09-2	n	TCL	350	NCL	5
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	c		12	M-RSL	
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	c		120	M-RSL	
Methylenebisbenzenamine, 4,4'-	101-77-9	c		3.4	M-RSL	
Methylenediphenyl Diisocyanate	101-68-8	n		3140	Csat	
Methylstyrene, Alpha-	98-83-9	n		5500	RSL	
Metolachlor	51218-45-2	n		9500	RSL	
Metribuzin	21087-64-9	n		1600	RSL	
Metsulfuron-methyl	74223-64-6	n		16000	RSL	
Mineral oils	8012-95-1	n		100000	MAX	
Mirex	2385-85-5	c		0.36	M-RSL	
Molinate	2212-67-1	n		130	RSL	
Molybdenum	7439-98-7	n		390	RSL	
Monochloramine	10599-90-3	n		7800	RSL	
Monomethylaniline	100-61-8	n		130	RSL	
Myclobutanil	88671-89-0	n		1600	RSL	
N,N'-Diphenyl-1,4-benzenediamine	74-31-7	n		19	RSL	
Naled	300-76-5	n		160	RSL	
Naphtha, High Flash Aromatic (HFAN)	64742-95-6	n		2300	RSL	
Naphthylamine, 2-	91-59-8	c		3	M-RSL	
Napropamide	15299-99-7	n		6300	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Nickel Acetate	373-02-4	n		670	RSL	
Nickel Carbonate	3333-67-3	n		670	RSL	
Nickel Carbonyl	13463-39-3	n		820	RSL	
Nickel Hydroxide	12054-48-7	n		820	RSL	
Nickel Oxide	1313-99-1	n		840	RSL	
Nickel Refinery Dust	Ni-Dust	n		820	RSL	
Nickel Soluble Salts	7440-02-0	n	TAL	1500	RSL	100
Nickel Subsulfide	12035-72-2	c		4.1	M-RSL	
Nickelocene	1271-28-9	n		670	RSL	
Nitrate	14797-55-8	n		100000	MAX	10000
Nitrate + Nitrite (as N)	N03N02N			---		10000
Nitrite	14797-65-0	n		7800	RSL	1000
Nitroaniline, 2-	88-74-4	n	TCL	630	RSL	
Nitroaniline, 4-	100-01-6	n	TCL	247	NCL	
Nitrobenzene	98-95-3	c	TCL	51	M-RSL	
Nitrocellulose	9004-70-0	n		100000	MAX	
Nitrofurantoin	67-20-9	n		4400	RSL	
Nitrofurazone	59-87-0	c		4.2	M-RSL	
Nitroglycerin	55-63-0	n		6.3	RSL	
Nitroguanidine	556-88-7	n		6300	RSL	
Nitromethane	75-52-5	c		54	M-RSL	
Nitropropane, 2-	79-46-9	c		0.14	M-RSL	
Nitroso-N-ethylurea, N-	759-73-9	c		0.045	M-RSL	
Nitroso-N-methylurea, N-	684-93-5	c		0.01	M-RSL	
Nitroso-di-N-butylamine, N-	924-16-3	c		0.99	M-RSL	
Nitroso-di-N-propylamine, N-	621-64-7	c	TCL	0.78	M-RSL	
Nitrosodiethanolamine, N-	1116-54-7	c		1.9	M-RSL	
Nitrosodiethylamine, N-	55-18-5	c		0.0081	M-RSL	
Nitrosodimethylamine, N-	62-75-9	c		0.02	M-RSL	
Nitrosodiphenylamine, N-	86-30-6	c	TCL	1100	M-RSL	
Nitrosomethylethylamine, N-	10595-95-6	c		0.2	M-RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Nitrosomorpholine [N-]	59-89-2	c		0.81	M-RSL	
Nitrosopiperidine [N-]	100-75-4	c		0.58	M-RSL	
Nitrosopyrrolidine, N-	930-55-2	c		2.6	M-RSL	
Nitrotoluene, m-	99-08-1	n		6.3	RSL	
Nitrotoluene, o-	88-72-2	c		32	M-RSL	
Nitrotoluene, p-	99-99-0	n		247	NCL	
Nonane, n-	111-84-2	n		11	RSL	
Norflurazon	27314-13-2	n		2500	RSL	
Octabromodiphenyl Ether	32536-52-0	n		190	RSL	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	n		3900	RSL	
Octamethylpyrophosphoramidate	152-16-9	n		130	RSL	
Oryzalin	19044-88-3	n		3200	RSL	
Oxadiazon	19666-30-9	n		320	RSL	
Oxamyl	23135-22-0	n		1600	RSL	200
Oxyfluorfen	42874-03-3	n		190	RSL	
Paclobutrazol	76738-62-0	n		820	RSL	
Paraquat Dichloride	1910-42-5	n		280	RSL	
Parathion	56-38-2	n		380	RSL	
Pebulate	1114-71-2	n		3900	RSL	
Pendimethalin	40487-42-1	n		2500	RSL	
Pentabromodiphenyl Ether	32534-81-9	n		160	RSL	
Pentabromodiphenyl ether, 2,2',4,4',5'- (BDE-99)	60348-60-9	n		6.3	RSL	
Pentachlorobenzene	608-93-5	n		63	RSL	
Pentachloroethane	76-01-7	c		77	M-RSL	
Pentachloronitrobenzene	82-68-8	c		27	M-RSL	
Pentachlorophenol	87-86-5	c	TCL	10	M-RSL	1
Pentaerythritol tetranitrate (PETN)	78-11-5	n		130	RSL	
Pentane, n-	109-66-0	n		810	RSL	
<b>Perchlorates</b>						
~Ammonium Perchlorate	7790-98-9	n		55	RSL	
~Lithium Perchlorate	7791-03-9	n		55	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
~Perchlorate and Perchlorate Salts	14797-73-0	n		55	RSL	15
~Potassium Perchlorate	7778-74-7	n		55	RSL	
~Sodium Perchlorate	7601-89-0	n		55	RSL	
Perfluorobutane Sulfonate	375-73-5	n		1600	RSL	
Perfluorooctane Sulfonate (PFOS)	1763-23-1			6	EPAR4	0.07
Perfluorooctanoic acid (PFOA)	335-67-1			16	EPAR4	0.07
Permethrin	52645-53-1	n		3200	RSL	
<b>Petroleum Hydrocarbons</b>						
~c5 through c8 aliphatic hydrocarbons	C5-C8 aliphatic			100	MAG	
~c9 through c12 aliphatic hydrocarbons	C9-C12 aliphatic			1000	MAG	
~c9 through c18 aliphatic hydrocarbons	C9-C18 aliphatic			1000	MAG	
~c19 through c36 aliphatic hydrocarbons	C19-C36 aliphatic			3000	MAG	
~c9 through c10 aromatic hydrocarbons	C9-C10 aromatic			100	MAG	
~c11 through c22 aromatic hydrocarbons	C11-C22 aromatic			1000	MAG	
~Diesel Range Organics (DRO)	TPH_DRO			1000	DRO	
~Gasoline Range Organics (GRO)	TPH_GRO			100	GRO	
Phenacetin	62-44-2	c		2500	M-RSL	
Phenmedipham	13684-63-4	n		16000	RSL	
Phenol	108-95-2	n	TCL	19000	RSL	
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	n		250	RSL	
Phenothiazine	92-84-2	n		32	RSL	
Phenylenediamine, m-	108-45-2	n		380	RSL	
Phenylenediamine, o-	95-54-5	c		120	M-RSL	
Phenylenediamine, p-	106-50-3	n		12000	RSL	
Phenylphenol, 2-	90-43-7	c		2800	M-RSL	
Phorate	298-02-2	n		13	RSL	
Phosgene	75-44-5	n		0.31	RSL	
Phosmet	732-11-6	n		1300	RSL	
<b>Phosphates, Inorganic</b>						
~Aluminum metaphosphate	13776-88-0	n		100000	MAX	
~Ammonium polyphosphate	68333-79-9	n		100000	MAX	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
~Calcium pyrophosphate	7790-76-3	n		100000	MAX	
~Diammonium phosphate	7783-28-0	n		100000	MAX	
~Dicalcium phosphate	7757-93-9	n		100000	MAX	
~Dimagnesium phosphate	7782-75-4	n		100000	MAX	
~Dipotassium phosphate	7758-11-4	n		100000	MAX	
~Disodium phosphate	7558-79-4	n		100000	MAX	
~Monoaluminum phosphate	13530-50-2	n		100000	MAX	
~Monoammonium phosphate	7722-76-1	n		100000	MAX	
~Monocalcium phosphate	7758-23-8	n		100000	MAX	
~Monomagnesium phosphate	7757-86-0	n		100000	MAX	
~Monopotassium phosphate	7778-77-0	n		100000	MAX	
~Monosodium phosphate	7558-80-7	n		100000	MAX	
~Polyphosphoric acid	8017-16-1	n		100000	MAX	
~Potassium tripolyphosphate	13845-36-8	n		100000	MAX	
~Sodium acid pyrophosphate	7758-16-9	n		100000	MAX	
~Sodium aluminum phosphate (acidic)	7785-88-8	n		100000	MAX	
~Sodium aluminum phosphate (anhydrous)	10279-59-1	n		100000	MAX	
~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	n		100000	MAX	
~Sodium hexametaphosphate	10124-56-8	n		100000	MAX	
~Sodium polyphosphate	68915-31-1	n		100000	MAX	
~Sodium trimetaphosphate	7785-84-4	n		100000	MAX	
~Sodium tripolyphosphate	7758-29-4	n		100000	MAX	
~Tetrapotassium phosphate	7320-34-5	n		100000	MAX	
~Tetrasodium pyrophosphate	7722-88-5	n		100000	MAX	
~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	n		100000	MAX	
~Tricalcium phosphate	7758-87-4	n		100000	MAX	
~Trimagnesium phosphate	7757-87-1	n		100000	MAX	
~Tripotassium phosphate	7778-53-2	n		100000	MAX	
~Trisodium phosphate	7601-54-9	n		100000	MAX	
Phosphine	7803-51-2	n		23	RSL	
Phosphoric Acid	7664-38-2	n		100000	MAX	

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Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
Phosphorus, White	7723-14-0	n		1.6	RSL	
<b>Phthalates</b>						
~Bis(2-ethylhexyl)phthalate	117-81-7	c	TCL	390	M-RSL	6
~Butyl Benzyl Phthalate	85-68-7	c	TCL	2900	M-RSL	
~Butylphthalyl Butylglycolate	85-70-1	n		63000	RSL	
~Dibutyl Phthalate	84-74-2	n	TCL	6300	RSL	
~Diethyl Phthalate	84-66-2	n	TCL	51000	RSL	
~Dimethylterephthalate	120-61-6	n		7800	RSL	
~Octyl Phthalate, di-N-	117-84-0	n	TCL	630	RSL	
~Phthalic Acid, P-	100-21-0	n		63000	RSL	
~Phthalic Anhydride	85-44-9	n		100000	MAX	
Picloram	1918-02-1	n		4400	RSL	500
Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	n		6.3	RSL	
Picric Acid (2,4,6-Trinitrophenol)	88-89-1	n		57	RSL	
Pirimiphos, Methyl	29232-93-7	n		630	RSL	
Polybrominated Biphenyls	59536-65-1	c		0.18	M-RSL	
<b>Polychlorinated Biphenyls (PCBs)</b>						
~Aroclor 1016	12674-11-2	n	TCL	4.1	RSL	
~Aroclor 1221	11104-28-2	c	TCL	2	M-RSL	
~Aroclor 1232	11141-16-5	c	TCL	1.7	M-RSL	
~Aroclor 1242	53469-21-9	c	TCL	2.3	M-RSL	
~Aroclor 1248	12672-29-6	c	TCL	2.3	M-RSL	
~Aroclor 1254	11097-69-1	n	TCL	1.1	NCL	
~Aroclor 1260	11096-82-5	c	TCL	2.4	M-RSL	
~Aroclor 5460	11126-42-4	n		35	RSL	
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	c		1.3	M-RSL	
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	c		1.2	M-RSL	
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	c		1.2	M-RSL	
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	c		1.2	M-RSL	
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	c		0.0012	M-RSL	
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	c		1.2	M-RSL	

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Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	c		1.2	M-RSL	
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	c		1.2	M-RSL	
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	c		1.2	M-RSL	
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	c		0.00037	M-RSL	
Total Polychlorinated Biphenyls (Total PCBs)	1336-36-3	c		2.3	M-RSL	0.5
~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	c		0.38	M-RSL	
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	c		0.12	M-RSL	
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	n		106	Csat	
<b>Polynuclear Aromatic Hydrocarbons (PAHs)</b>						
~Acenaphthene	83-32-9	n	TCL	3600	RSL	
~Anthracene	120-12-7	n	TCL	18000	RSL	
~Benz[a]anthracene	56-55-3	c	TCL	1.6	M-RSL	
~Benzo(j)fluoranthene	205-82-3	c		4.2	M-RSL	
~Benzo[a]pyrene	50-32-8	c	TCL	0.24	BTV	0.2
~Benzo[b]fluoranthene	205-99-2	c	TCL	1.6	M-RSL	
~Benzo[k]fluoranthene	207-08-9	c	TCL	16	M-RSL	
~Chloronaphthalene, Beta-	91-58-7	n	TCL	4800	RSL	
~Chrysene	218-01-9	c	TCL	160	M-RSL	
~Dibenz[a,h]anthracene	53-70-3	c	TCL	0.17	BTV	
~Dibenzo(a,e)pyrene	192-65-4	c		0.42	M-RSL	
~Dimethylbenz(a)anthracene, 7,12-	57-97-6	c		0.0046	M-RSL	
~Fluoranthene	206-44-0	n	TCL	2400	RSL	
~Fluorene	86-73-7	n	TCL	2400	RSL	
~Indeno[1,2,3-cd]pyrene	193-39-5	c	TCL	1.6	M-RSL	
~Methylnaphthalene, 1-	90-12-0	c		180	M-RSL	
~Methylnaphthalene, 2-	91-57-6	n	TCL	240	RSL	
~Naphthalene	91-20-3	c	TCL	38	M-RSL	
~Nitropyrene, 4-	57835-92-4	c		4.2	M-RSL	
~Phenanthrene	85-01-8	n	TCL	1800	PYR	
~Pyrene	129-00-0	n	TCL	1800	RSL	
Potassium Perfluorobutane Sulfonate	29420-49-3	n		1300	RSL	

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Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Prochloraz	67747-09-5	c		36	M-RSL	
Profluralin	26399-36-0	n		470	RSL	
Prometon	1610-18-0	n		950	RSL	
Prometryn	7287-19-6	n		250	RSL	
Propachlor	1918-16-7	n		820	RSL	
Propanil	709-98-8	n		320	RSL	
Propargite	2312-35-8	n		1300	RSL	
Propargyl Alcohol	107-19-7	n		160	RSL	
Propazine	139-40-2	n		1300	RSL	
Propham	122-42-9	n		1300	RSL	
Propiconazole	60207-90-1	n		820	RSL	
Propionaldehyde	123-38-6	n		75	RSL	
Propyl benzene	103-65-1	n		3800	RSL	
Propylene	115-07-1	n		2200	RSL	
Propylene Glycol	57-55-6	n		100000	MAX	
Propylene Glycol Dinitrate	6423-43-4	n		100000	MAX	
Propylene Glycol Monomethyl Ether	107-98-2	n		41000	RSL	
Propylene Oxide	75-56-9	c		21	M-RSL	
Propyzamide	23950-58-5	n		4700	RSL	
Pyridine	110-86-1	n		78	RSL	
Quinalphos	13593-03-8	n		32	RSL	
Quinoline	91-22-5	c		1.8	M-RSL	
Quizalofop-ethyl	76578-14-8	n		570	RSL	
Refractory Ceramic Fibers	Ceramic	n		100000	MAX	
Resmethrin	10453-86-8	n		1900	RSL	
Ronnel	299-84-3	n		3900	RSL	
Rotenone	83-79-4	n		250	RSL	
Safrole	94-59-7	c		5.5	M-RSL	
Selenious Acid	7783-00-8	n		390	RSL	
Selenium	7782-49-2	n	TAL	390	RSL	50
Selenium Sulfide	7446-34-6	n		390	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant				Soil	Key	Groundwater
Analyte	CAS No.		TAL or TCL?	(mg/kg)		(ug/L)
Sethoxydim	74051-80-2	n		5700	RSL	
Silica (crystalline, respirable)	7631-86-9	n		5000	MAX	
Silver	7440-22-4	n	TAL	390	RSL	
Simazine	122-34-9	c		45	M-RSL	4
Sodium Acifluorfen	62476-59-9	n		820	RSL	
Sodium Azide	26628-22-8	n		310	RSL	
Sodium Dichromate	10588-01-9	c		3	M-RSL	
Sodium Diethyldithiocarbamate	148-18-5	c		20	M-RSL	
Sodium Fluoride	7681-49-4	n		3900	RSL	
Sodium Fluoroacetate	62-74-8	n		1.3	RSL	
Sodium Metavanadate	13718-26-8	n		78	RSL	
Sodium Tungstate	13472-45-2	n		63	RSL	
Sodium Tungstate Dihydrate	10213-10-2	n		63	RSL	
Stirofos (Tetrachlorovinphos)	961-11-5	c		230	M-RSL	
Strontium Chromate	7789-06-2	c		3	M-RSL	
Strontium, Stable	7440-24-6	n		47000	RSL	
Strychnine	57-24-9	n		19	RSL	
Styrene	100-42-5	n	TCL	6000	RSL	100
Styrene-Acrylonitrile (SAN) Trimer	SAN Trimer	n		190	RSL	
Sulfolane	126-33-0	n		63	RSL	
Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	n		51	RSL	
Sulfur Trioxide	7446-11-9	n		100000	MAX	
Sulfuric Acid	7664-93-9	n		100000	MAX	
Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	c		220	M-RSL	
TCMTB	21564-17-0	n		1900	RSL	
Tebuthiuron	34014-18-1	n		4400	RSL	
Temephos	3383-96-8	n		1300	RSL	
Terbacil	5902-51-2	n		820	RSL	
Terbufos	13071-79-9	n		2	RSL	
Terbutryn	886-50-0	n		63	RSL	
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	n		6.3	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Tetrachlorobenzene, 1,2,4,5-	95-94-3	n	TCL	23	RSL	
Tetrachloroethane, 1,1,1,2-	630-20-6	c		20	M-RSL	
Tetrachloroethane, 1,1,2,2-	79-34-5	c	TCL	6	M-RSL	
Tetrachloroethylene	127-18-4	n	TCL	81	NCL	1
Tetrachlorophenol, 2,3,4,6-	58-90-2	n	TCL	1900	RSL	
Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	c		0.35	M-RSL	
Tetraethyl Dithiopyrophosphate	3689-24-5	n		32	RSL	
Tetrafluoroethane, 1,1,1,2-	811-97-2	n		1090	Csat	
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	n		160	RSL	
Thallic Oxide	1314-32-5	n		1.6	RSL	
Thallium (I) Nitrate	10102-45-1	n		0.78	RSL	
Thallium (Soluble Salts)	7440-28-0	n	TAL	0.78	RSL	2
Thallium Acetate	563-68-8	n		0.78	RSL	
Thallium Carbonate	6533-73-9	n		1.6	RSL	
Thallium Chloride	7791-12-0	n		0.78	RSL	
Thallium Selenite	12039-52-0	n		0.78	RSL	
Thallium Sulfate	7446-18-6	n		1.6	RSL	
Thifensulfuron-methyl	79277-27-3	n		820	RSL	
Thiobencarb	28249-77-6	n		630	RSL	
Thiodiglycol	111-48-8	n		5400	RSL	
Thiofanox	39196-18-4	n		19	RSL	
Thiophanate, Methyl	23564-05-8	n		5100	RSL	
Thiram	137-26-8	n		320	RSL	
Tin	7440-31-5	n		47000	RSL	
Titanium Tetrachloride	7550-45-0	n		50000	MAX	
Toluene	108-88-3	n	TCL	4900	RSL	1000
Toluene-2,4-diisocyanate	584-84-9	n		6.4	RSL	
Toluene-2,5-diamine	95-70-5	n		12.3	NCL	
Toluene-2,6-diisocyanate	91-08-7	n		5.3	RSL	
Toluidine, o- (Methylaniline, 2-)	95-53-4	c		340	M-RSL	
Toluidine, p-	106-49-0	c		180	M-RSL	

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Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Toxaphene	8001-35-2	c	TCL	4.9	M-RSL	3
Tralomethrin	66841-25-6	n		470	RSL	
Tri-n-butyltin	688-73-3	n		23	RSL	
Triacetin	102-76-1	n		100000	MAX	
Triadimefon	43121-43-3	n		1900	RSL	
Triallate	2303-17-5	n		1000	RSL	
Triasulfuron	82097-50-5	n		630	RSL	
Tribenuron-methyl	101200-48-0	n		510	RSL	
Tribromobenzene, 1,2,4-	615-54-3	n		390	RSL	
Tributyl Phosphate	126-73-8	c		600	M-RSL	
Tributyltin Compounds	Tributyltin	n		19	RSL	
Tributyltin Oxide	56-35-9	n		19	RSL	
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	n	TCL	40000	RSL	
Trichloroacetic Acid	76-03-9	c		78	M-RSL	60
Trichloroaniline HCl, 2,4,6-	33663-50-2	c		190	M-RSL	
Trichloroaniline, 2,4,6-	634-93-5	n		1.9	RSL	
Trichlorobenzene, 1,2,3-	87-61-6	n	TCL	63	RSL	
Trichlorobenzene, 1,2,4-	120-82-1	n	TCL	57.8	NCL	70
Trichloroethane, 1,1,1-	71-55-6	n	TCL	8100	RSL	200
Trichloroethane, 1,1,2-	79-00-5	n	TCL	1.5	NCL	5
Trichloroethylene	79-01-6	n	TCL	4.12	NCL	1
Trichlorofluoromethane	75-69-4	n	TCL	23000	RSL	
Trichlorophenol, 2,4,5-	95-95-4	n	TCL	6300	RSL	
Trichlorophenol, 2,4,6-	88-06-2	n	TCL	61.6	NCL	
Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	n		630	RSL	
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	n		510	RSL	50
Trichloropropane, 1,1,2-	598-77-6	n		390	RSL	
Trichloropropane, 1,2,3-	96-18-4	c		0.051	M-RSL	
Trichloropropene, 1,2,3-	96-19-5	n		0.73	RSL	
Tricresyl Phosphate (TCP)	1330-78-5	n		1300	RSL	
Tridiphane	58138-08-2	n		190	RSL	

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Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Triethylamine	121-44-8	n		120	RSL	
Triethylene Glycol	112-27-6	n		100000	MAX	
Trifluoroethane, 1,1,1-	420-46-2	n		15000	RSL	
Trifluralin	1582-09-8	n		462	NCL	
Trimethyl Phosphate	512-56-1	c		270	M-RSL	
Trimethylbenzene, 1,2,3-	526-73-8	n		49	RSL	
Trimethylbenzene, 1,2,4-	95-63-6	n		58	RSL	
Trimethylbenzene, 1,3,5-	108-67-8	n		780	RSL	
Trimethylpentene, 2,4,4-	25167-70-8	n		780	RSL	
Trinitrobenzene, 1,3,5-	99-35-4	n		2200	RSL	
Trinitrotoluene, 2,4,6-	118-96-7	n		36	NCL	
Triphenylphosphine Oxide	791-28-6	n		1300	RSL	
Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	n		1300	RSL	
Tris(1-chloro-2-propyl)phosphate	13674-84-5	n		630	RSL	
Tris(2,3-dibromopropyl)phosphate	126-72-7	c		2.8	RSL	
Tris(2-chloroethyl)phosphate	115-96-8	c		270	M-RSL	
Tris(2-ethylhexyl)phosphate	78-42-2	c		1700	M-RSL	
Tungsten	7440-33-7	n		63	RSL	
Uranium (Soluble Salts)	U-soluble salts	n		230	RSL	30
Urethane	51-79-6	c		1.2	M-RSL	
Vanadium Pentoxide	1314-62-1	n		657	NCL	
Vanadium and Compounds	7440-62-2	n	TAL	390	RSL	
Vernolate	1929-77-7	n		78	RSL	
Vinclozolin	50471-44-8	n		1600	RSL	
Vinyl Acetate	108-05-4	n		910	RSL	
Vinyl Bromide	593-60-2	c		1.2	M-RSL	
Vinyl Chloride	75-01-4	c	TCL	0.59	M-RSL	1
Warfarin	81-81-2	n		19	RSL	
Xylene, P-	106-42-3	n		560	RSL	
Xylene, m-	108-38-3	n		550	RSL	
Xylene, o-	95-47-6	n	TCL	650	RSL	

## DNREC-SIRS Reporting Level Table - Effective July 2016

Contaminant						
Analyte	CAS No.		TAL or TCL?	Soil (mg/kg)	Key	Groundwater (ug/L)
Xylenes	1330-20-7	n		580	RSL	10000
Zinc Phosphide	1314-84-7	n		23	RSL	
Zinc and Compounds	7440-66-6	n	TAL	23000	RSL	
Zineb	12122-67-7	n		3200	RSL	
Zirconium	7440-67-7	n		6.3	RSL	