ECF-100KR4-17-0240
Revision 0

Comparison of 100-KR-1 and 100-KR-2 Source Operable Unit Exposure Point Concentrations to Soil Screening Levels and Preliminary Remediation Goals Protective of Groundwater and Surface Water

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

CH2MHILL
Plateau Remediation Company

P.O. Box 1600
Richland, Washington 99352

Approved for Public Release;
Further Dissemination Unlimited

ECF-100KR4-17-0240
Revision 0

Comparison of 100-KR-1 and 100-KR-2 Source Operable Unit Exposure Point Concentrations to Soil Screening Levels and Preliminary Remediation Goals Protective of Groundwater and Surface Water

Document Type: RPT

J. B. Fullerton
INTERA, Inc.

Date Published
August 2018

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

CH2MHILL
Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352

APPROVED
By Julia Raymer at 2:27 pm, Aug 23, 2018

Release Approval Date

Approved for Public Release;
Further Dissemination Unlimited

TRADEMARK DISCLAIMER

Reference herein to any specific commercial product, process, or service by tradename, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

This report has been reproduced from the best available copy.

Printed in the United States of America

Basis of Qualifications for ECF Roles

Preparer: Jacob Fullerton

Groundwater Modeler

MS, Civil Engineering, Brigham Young University, 2017

BS, Civil and Environmental Engineering, Brigham Young University, 2016

Licenses: Engineer in Training (EIT)

Jacob Fullerton's experience encompasses civil and environmental engineering, and is focused on the development and application of groundwater models using codes and platforms such as GMS, ArcMap, and GSSHA. He also brings expertise with coding web applications in multiple programming languages, including Javascript, HTML, JQuery, and Python. He has incorporated an analytic element groundwater model called TimML into a web app capable of performing general groundwater modeling tasks. Additionally, he has created an educational groundwater dewatering web app that simulates aquifer dewatering using wells and slurry trenches.

Checker: Helalur Rashid

Hydrologist

MS, Civil Engineering, Washington State University, 2010

BS, Civil Engineering, Bangladesh University of Engineering & Technology, 2007

Helalur Rashid's professional experience encompasses numerical modeling of groundwater in the saturated and unsaturated zones, model calibration, groundwater management, geostatistics analysis, sediment transport, and hydraulic characterization of watersheds. He has applied a wide variety of modeling codes and geographic information system software including MODFLOW, MODFLOW-SURFACT, MT3DMS, MODPATH, PEST, Parallel PEST, STOMP, SWAT, HEC-HMS, ArcGIS, Leapfrog Hydro, Groundwater Vistas, RETC, and TecPlot. Helal has worked primarily on environmental restoration projects for the federal government. He is also skilled in using various laboratory and field instruments such as acoustic Doppler velocimeters, laser distance meters, and viscometers.

Senior Reviewer: Donna Morgans

Senior Risk Assessment Specialist

MS, Environmental Toxicology, Oregon State University, 2003

BS, Microbiology, Oregon State University, 1986

Donna Morgans' professional experience has focused on assessing the potential for adverse human health effects associated with exposure to radiological and nonradiological contaminants in air, soil, water, and animal and plant tissues. In support of restoration efforts to address contamination in a variety of environmental media, she has managed and performed complex risk assessment and data compilation efforts to address a host of federal, state, and local regulations that include Comprehensive Environmental Response, Compensation, and Liability Act lifecycle decisions. Donna is also proficient in the application of aspects related to CERCLA including the development and review of work plans, remedial investigations, feasibility studies, and proposed plans. She has applied this knowledge to a variety of environmental projects and programs for private industry clients and federal government agencies. She has experience in developing risk assessment products and incorporating the appropriate federal and state regulatory requirements on projects throughout the US. Donna also has experience

in the statistical evaluation of analytical data to determine population distributions using ProUCL and modeling the effects from exposure to radiological contaminants in soil using RESRAD.

ENVIRONMENTAL CALCULATION COVER PAGE

Section 1: Completed by the Responsible Manager

Project: 100-K Remedial Investigation/Feasibility Study

Date: 11/14/2017

Calculation Title & Description: Comparison of 100-KR-1 and 100-KR-2 Source Operable Unit Exposure Point Concentrations to Soil Screening Levels and Preliminary Remediation Goals Protective of Groundwater and Surface Water

RELEASE / ISSUE

DATE: Aug 23, 2018 HANFORD RELEASE

Section 2: Completed by Preparer

Calculation No.: ECF-100KR4-17-0240 **Revision No.:** 0

Revision History

Revision No.	Description	Date	Affected Pages ADD ROW
0	Initial issue		All
			☒

Section 3: Completed by the Responsible Manager

Document Control:

Is the document intended to be controlled within the Document Management Control System (DMCS)? ☒ Yes ☐ No

Does document contain scientific and technical information intended for public use? ☒ Yes ☐ No

Does document contain controlled-use information? ☐ Yes ☒ No

Section 4: Document Review & Approval

	Name /Position	Signature	Date
Preparer:	JB Fullerton/Hydrogeologist	JB Fullerton	7/9/2018
Checker:	H Rashid/Hydrogeologist	S.M. Helalur Rashid	7/9/2018
Senior Reviewer:	DL Morgans/Sr HH Risk Assessor	Donna L Morgans	7/10/18
Responsible Manager:	AH Aly/Risk & Modeling Integration WE NICHOLS, ACTING	[signature]	10 JUL 2018

Section 5: Applicable if calculation is a risk assessment or uses an environmental model

PRIOR TO INITIATING MODELING:

Required training for modelers completed:

	Name /Position	Signature	Date
Integration Lead	Not Applicable	N/A	

Safety Software Approved:

	Name /Position	Signature	Date
Integration Lead	Not Applicable	N/A	

CALCULATION APPROVED:

	Name /Position	Signature	Date
Risk/Modeling Integration Manager:	AH Aly/Risk & Modeling Integr. Mngr WE NICHOLS, ACTING	[signature]	10 JUL 2018

Environmental Calculation File

Comparison of 100-KR-1 and 100-KR-2 Source Operable Unit Exposure Point Concentrations to Soil Screening Levels and Preliminary Remediation Goals Protective of Groundwater and Surface Water

Contents

1 Purpose 5

2 Background 5

3 Methodology 6

4 Assumptions and Inputs 7

4.1 Representative Waste Site Lengths 7

4.1.1 Waste Site 118-K-1 8

4.2 Soil Screening Levels 11

4.2.1 Soil Screening Levels Protective of Groundwater 12

4.2.2 Soil Screening Levels Protective of Surface Water 12

4.3 Preliminary Remediation Goals for the Protection of Groundwater and Surface Water 13

4.4 Exposure Point Concentrations 13

4.5 Hanford Site Background 13

4.6 Required Detection Limits 14

5 Software Applications 14

6 Calculation 14

7 Results/Conclusions 14

7.1 Results of the SSL Comparisons 14

7.2 Results of the PRG Comparisons 15

8 References 16

Figures

Figure 4-1. Figure 7 from CVP-2013-00002 8

Figure 4-2. Figure 37 from SSI 0100K-WI-G0011 9

Figure 4-3. Figure 14 from SSI 0100K-WI-G0001 9

Figure 4-4. Figure 15 from SSI 0100K-WI-G0001 10

Figure 4-5. Figure 18 from SSI 0100K-WI-G0001 10

Terms

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
COPC	contaminant of potential concern
Cr(VI)	hexavalent chromium
DOE	U.S. Department of Energy
ECF	environmental calculation file
EPA	Environmental Protection Agency
EPC	exposure point concentration
FS	feasibility Study
OU	operable Unit
PRG	preliminary remediation goal
RDL	required detection limit
RI	remedial investigation
RI/FS	remedial investigation/feasibility study
SSI	site specific instruction
SSL	soil screening level
STOMP	subsurface transport over multiple phases
UCL	upper confidence limit

This page intentionally left blank.

1 Purpose

This environmental calculation file (ECF) documents the methodology used to determine if current site conditions for the 100-K Area based on post-remediation soil sample results exceed scaled soil screening levels (SSLs) for the protection of groundwater and the protection of surface water. The 100-K Area is associated with two source operable units (OUs): 100-KR-1 and 100-KR-2. The exposure point concentrations (EPCs) for each waste site decision unit in the 100-K OUs are compared to scaled SSLs to identify contaminants of potential concern (COPCs) for the protection of groundwater pathway and the protection of surface water pathway. The process is consistent with the guidance described in EPA 540/R-96/018, *Soil Screening Guidance: Users Guide.* The identified COPCs will be used to support the remedial investigation/feasibility study (RI/FS) process being conducted for the 100 Areas and 300 Area under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA).

This ECF also documents the methodology used to identify waste sites in the 100-K Area where post-remediation soil sample results exceed soil preliminary remediation goals (PRGs) for the protection of groundwater and the protection of surface water. The waste sites where EPCs exceed a PRG will be evaluated through the remedial investigation/feasibility study (RI/FS) process being conducted for the 100 Areas and 300 Area under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA).

This ECF supports DOE/RL-2010-97, *Remedial Investigation/Feasibility Study for the 100-KR-1, 100-KR-2, and 100-KR-4 Operable Units*. A summary based upon the comparison of EPCs to scaled SSLs described in this environmental calculation will be presented in the RI/FS report.

2 Background

Based on agreements with the Senior Executive Council (DOE/RL-2011-50, *Regulatory Basis and Implementation of a Graded Approach to Evaluation of Groundwater Protection*), modeling with the STOMP simulator (PNNL-15782, *STOMP Subsurface Transport Over Multiple Phases, Version 4.0: User's Guide*)[1] was performed to provide a basis for estimating SSLs and PRGs for groundwater protection and surface water protection. Unit-length SSLs for the protection of groundwater and the protection of surface water were estimated using the STOMP 1D 70:30/100:0 Contaminant Source Model, which is a one-dimensional model that assumes either 70 percent contamination of the vadose zone (upper 70 percent contaminated, lower 30 percent uncontaminated [70:30]) or 100 percent contamination of the vadose zone (zero percent uncontaminated [100:0]) beneath a backfilled waste site. Source distributions are assigned based on analyte distribution coefficients (K_d). A 70:30 source distribution is assumed for analytes with a $K_d \geq 2$ mL/g and a 100:0 source distribution is assumed for analytes with a $K_d < 2$ mL/g. As implemented for determination of SSLs, the STOMP 1D 70:30/100:0 Contaminant Source Model includes recharge from irrigation and assumes that all contamination moves downward with no dispersion, volatilization, or credit for mixing with river water. For determination of PRGs, the model was implemented with a base case recharge scenario, which represents a site re-vegetated with a natural (shrub-steppe) land cover with no irrigation of the site.

Comparisons are first conducted between the analyte-specific SSL that is scaled to the waste site dimension in the direction of groundwater flow and EPC values for each waste site decision unit. Comparisons are then conducted between the EPCs and Hanford Site soil background concentrations.

---

[1] Battelle Memorial Institute (Battelle) retains copyright on all versions, revisions, and operational modes of the Subsurface Transport Over Multiple Phases (STOMP) software simulator, as permitted by the U.S Department of Energy. STOMP is used here under a limited government use license.

Analytes with EPCs that exceed the selected SSL (the higher of the scaled SSL, the 90th percentile background concentration, and the required detection limit [RDL]) are considered COPCs and are carried forward into the RI/FS report. Comparisons are further conducted between EPCs and unit-length PRGs for both groundwater protection and surface water protection for COPCs that exceeded unit-length SSLs. Analytes with EPCs that exceed the PRG are also carried forward into the RI/FS report.

3 Methodology

This section describes the methodology used to compare EPCs for each waste site decision unit to scaled SSLs for groundwater protection and surface water protection.

Overburden and stockpile (staging pile) decision units are not evaluated under this methodology. While sampled, this material does not remain in the same location but is used in backfilling waste sites. The models used as the basis of SSLs for the protection of groundwater and the protection of surface water using the STOMP 1D 70:30/100:0 contaminant source model presume that the sampled concentrations are present uniformly throughout the upper 70% or 100% of the vadose zone below the backfill. However, this assumption is not applicable to overburden and stockpile (staging pile) material, so derived SSLs are not appropriate to apply in these instances.

For all detected analytes for the 100-K Area waste site decision units, the following steps are performed:

1. Obtain unit-length SSLs for the protection of groundwater and the protection of surface water calculated using the STOMP 1D 70:30/100:0 Contaminant Source model.
2. Obtain waste site dimensions parallel to general groundwater flow direction.
3. Divide unit-length SSL by the waste site dimension to obtain SSL that is scaled to waste site dimension in direction of groundwater flow.
4. Obtain EPC values for each waste site decision unit within the 100-K OUs.
5. Individually compare EPCs for each waste site decision unit within the 100-K OUs to scaled SSLs for the protection of groundwater and the protection of surface water to the waste site decision unit representative lineal dimension in the general direction of groundwater, flow, or directly compare without scaling in the case of total petroleum hydrocarbons (TPH) and hexavalent chromium (Cr(VI)) as these values are not scaled.

The previous steps are conducted for all detected analytes in the 100-K OUs. The following steps are used to provide a list of analytes that also exceed applicable 90th percentile background concentrations.

6. Obtain 90th percentile background values.
7. Compare the EPC value to the applicable lognormal 90th percentile background value.
8. If the EPC is less than or equal to the lognormal 90th percentile background value, then no further comparison is made.
9. If the EPC is greater than the lognormal 90th percentile value, then a comparison to SSLs scaled to representative lineal dimension in the general direction of groundwater flow, or directly compare without scaling in the case of TPH and Cr(VI) is made.
10. If a lognormal 90th percentile value is not available, then a comparison to SSLs scaled to representative lineal dimension in the general direction of groundwater flow, or directly compare without scaling in the case of TPH and Cr(VI) is made.

11. Obtain the RDL.
12. Determine if the scaled SSL concentration is less than the lognormal 90th percentile background value and the RDL. If the scaled SSL concentration is less than the lognormal 90th percentile background value and the RDL, then the selected SSL (for groundwater protection or surface water protection) is established as the higher of the two values. This process is consistent with 2013 MTCA (WAC 173-340-700(6)(d), "Overview of cleanup standards").
13. Determine if EPC is greater than the selected SSL identified in Step 12.
14. All analytes reported with an EPC greater than the selected SSL for groundwater protection or selected SSL for surface water protection undergo further evaluation to determine if the EPC represents a uniform distribution or whether it represents a single detection above the SSL. Individual sample concentrations are also reviewed to determine if they are within the range of naturally occurring levels, or if the detections represent laboratory contamination.

Analytes that have EPCs that exceed both the 90th percentile soil background concentration and the selected SSL are considered COPCs and carried forward for PRG comparison. Carbon-14, Cr(VI), and selenium are considered COPCs and are carried forward for PRG comparison.

1. Identify COPCs for each waste site decision unit in the 100-K Source OUs.
2. Obtain the PRGs for the protection of groundwater and for the protection of surface water calculated using the STOMP 1D 70:30/100:0 Contaminant Source model.
3. Obtain EPC values for the COPCs identified for each waste site decision unit in the 100-N Source OU.
4. Individually compare EPCs for each waste site decision unit in the 100-K Source OUs to soil PRGs for the protection of groundwater and the protection of surface water.

4 Assumptions and Inputs

Assumptions and inputs associated with representative waste site lengths, SSLs, EPCs, and soil background concentrations, and RDLs are described below.

4.1 Representative Waste Site Lengths

ECF-100KR1-0092 was the primary source for the representative waste site dimensions. The median length was selected from the flowlines generated in ECF-100KR1-0092 to represent each waste site. Additional refinement was performed for waste sites containing spatially identifiable subunits to obtain accurate representative lengths. Refining the representative waste site lengths for a given waste site/decision unit consisted of the following steps:

1. Extract the pertinent image(s) relevant to the waste site/decision unit as a PNG file(s)
2. Using ArcMap®, georeference the extracted image(s) with the available spatial data to get the appropriate location and scale for the image(s)
3. Digitize polygons representing the subunits of the waste site by tracing the outlines of the areas depicted in the georeferenced figure(s)
4. Copy the flowlines generated in ECF-100KR1-0092 into the same map document as the georeferenced image(s)

5. Perform an “Intersect” using the digitized areas and flowlines as input
6. From the output of the “Intersect” tool, export the attribute table to Excel and summarize the data using Pivot Tables to obtain the maximum length of the waste site subunits in question

In the case of focused samples and pipelines, the waste site dimension is 1.0 m because a focused sample is a point measurement and not a statistical measure of the waste site decision unit. The waste site dimensions for each waste site decision unit are presented in Table 4-1. Discussion specific to the waste site(s) decision units that were included in the refinement process are presented in the following subsection(s).

4.1.1 Waste Site 118-K-1

Waste site 118-K-1 contains 20 subunits identified as areas that were further subdivided by depth designation and phase number; shallow and deep, Phase 1 or Phase 2; respectively. Figure 7 shows the subunits from *Cleanup Verification Package for the 118-K-1 Burial Ground CVP-2013-00002* (see Figure 4-1). Area 11 is shown in Figure 4-1 which was further divided into eight regions (see Figure 4-2) using Figure 37 from *Site Specific Instruction (SSI) No. 0100K-WI-G0011*. Lastly, Phase 1 areas were obtained from Figures 14, 15 and 18 in *SSI 0100K-WI-G0001* (see Figure 4-3 through Figure 4-5). Following the methodology described in Section 3, only analytes with EPC values greater than their corresponding scaled SSL values were further evaluated. EPCs from subunits greater than scaled SSLs were considered as candidates for refining the representative length. A total of 27 refined representative lengths were calculated for the subareas shown in Table 4-2.

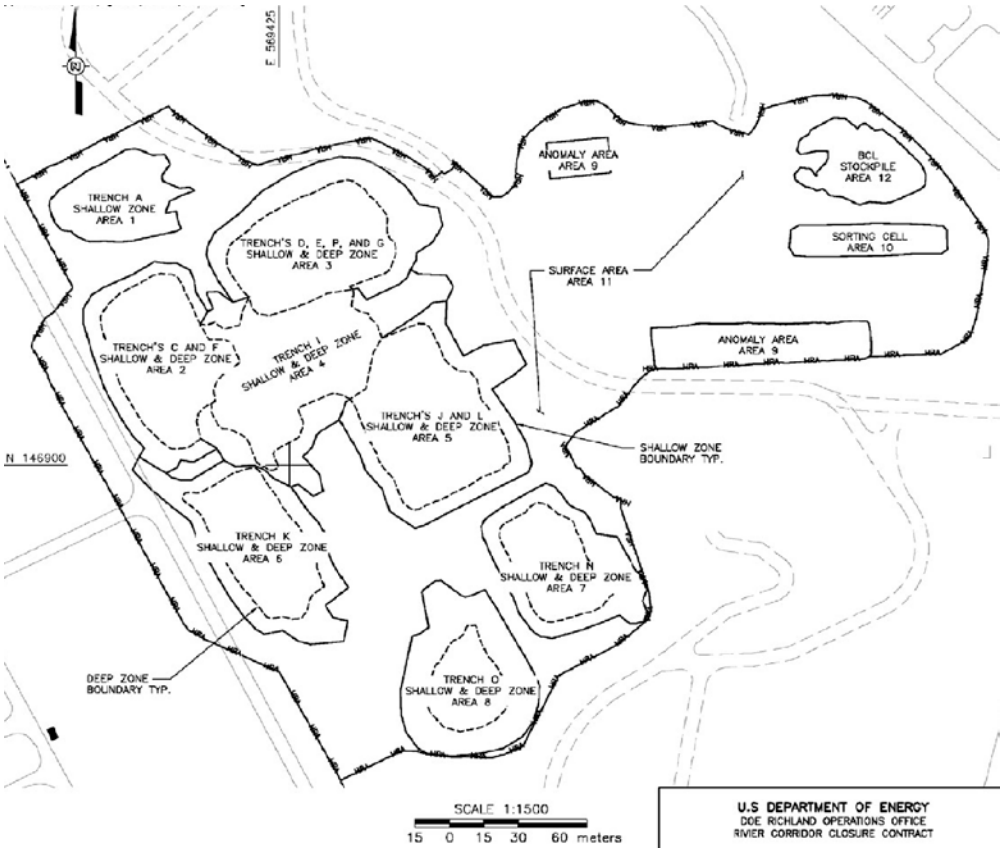

Figure 4-1. Figure 7 from CVP 2013-00002

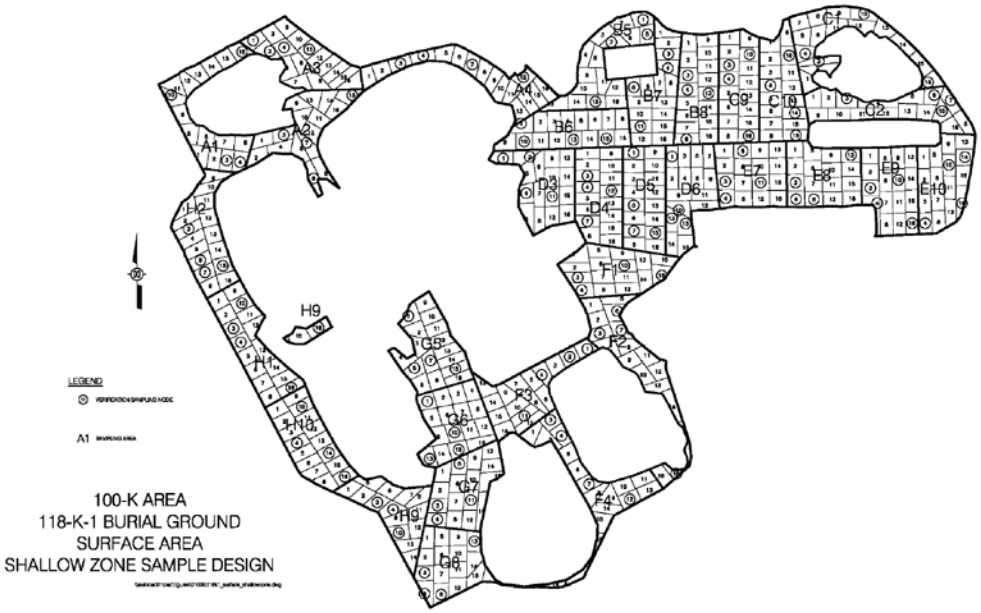

Figure 4-2. Figure 37 from SSI 0100K-WI-G0011

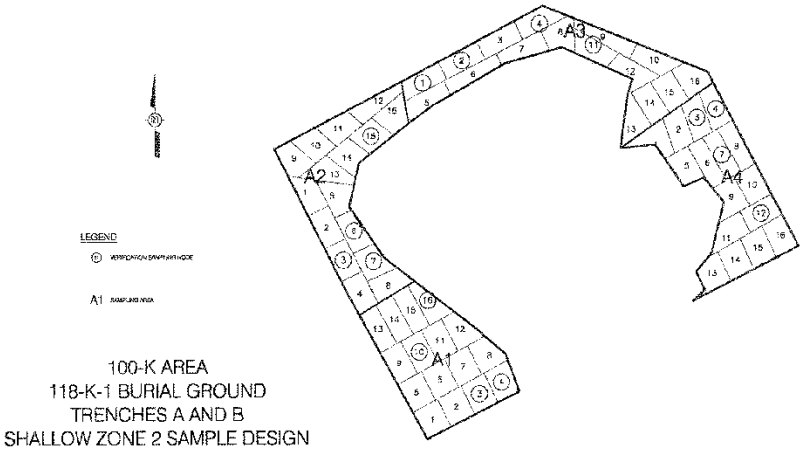

Figure 4-3. Figure 14 from SSI 0100K-WI-G0001

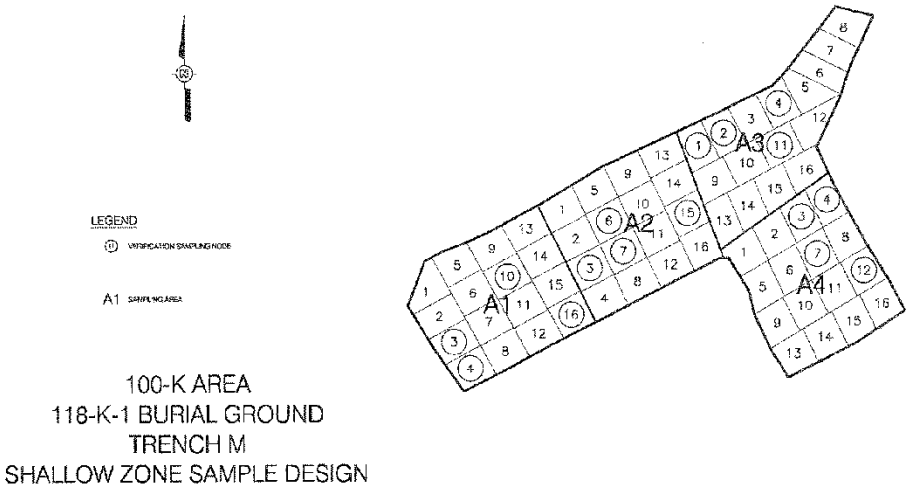

Figure 4-4. Figure 15 from SSI 0100K-WI-G0001

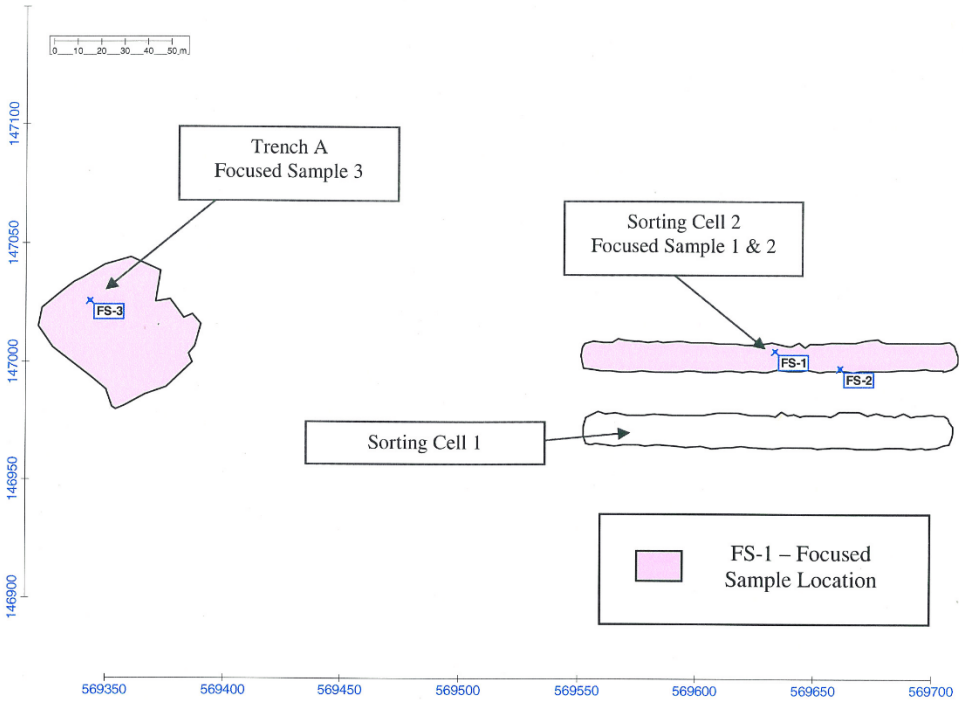

Figure 4-5. Figure 18 from SSI 0100K-WI-G0001

Table 4-2. Representative Lengths for Subunits in 118-K-1

Feature No.	Phase No.	Area No.	Depth Designation	Subunit	Length (m)
1	1	2	Shallow*	(NA)	53.0
2	1	3	Shallow*	(NA)	17.8
3	1	5	Shallow*	(NA)	18.5
4	2	1	Shallow	(NA)	41.9
5	2	2	Shallow	(NA)	63.3
6	2	2	Deep	(NA)	70.5
7	2	3	Shallow	(NA)	51.4
8	2	3	Deep	(NA)	45.7
9	2	4	Shallow	(NA)	31.5
10	2	4	Deep	(NA)	58.6
11	2	5	Shallow	(NA)	76.2
12	2	5	Deep	(NA)	75.1
13	2	6	Shallow	(NA)	89.2
14	2	6	Deep	(NA)	69.4
15	2	7	Shallow	(NA)	71.7
16	2	7	Deep	(NA)	53.1
17	2	8	Shallow	(NA)	66.7
18	2	8	Deep	(NA)	38.3
19	2	9	Shallow	(NA)	22.0
20	2	10	Shallow	(NA)	9.6
21	2	11	Shallow*	A	53.0
22	2	11	Shallow*	B	59.4
23	2	11	Shallow*	C	63.1
24	2	11	Shallow*	D	66.4
25	2	11	Shallow*	E	41.7
26	2	11	Shallow*	F	100.6
27	2	12	Shallow	(NA)	44.2
* - No specific depth designation was given in the figure(s). Depth designations were assigned based on the context provided by CVP-2012-00002.					

4.2 Soil Screening Levels

SSLs for groundwater protection and surface water protection are described below. Table 4-3 documents the source of information for SSLs.

Table 4-3. Soil Screening Level and Preliminary Remediation Goal References

Soil Screening Levels and Preliminary Remediation Goals	Pathway	Reference
STOMP 1D 70:30/100:0 Contaminant Source Model	Groundwater	ECF-100KR1-17-0087

Table 4-3. Soil Screening Level and Preliminary Remediation Goal References

Soil Screening Levels and Preliminary Remediation Goals	Pathway	Reference
	Surface Water	ECF-100KR1-17-0087

Notes:

ECF-100KR1-17-0087, *STOMP 1-D Modeling for Determination of Unit-Length Soil Screening Levels and Preliminary Remediation Goals for Waste Sites in the 100-K Source Operable Unit.*

4.2.1 Soil Screening Levels Protective of Groundwater

With the exception of TPH and Cr(VI), unit-length SSLs for the protection of groundwater at and near the 100-K OUs have been derived using the following model:

- STOMP 1D 70:30/100:0 Contaminant Source Model for analytes with $K_d \geq 2$ mL/g and $K_d < 2$ mL/g, respectively.
- The unit-length STOMP 1D groundwater protective SSLs for all detected analytes in the 100-K Source OUs are provided in Table 4-4.
- For strontium-90, the unit-length SSL for the protection of groundwater at and near the 100-K OUs was derived using the STOMP 1D 100:0 Contaminant Source Model.
- The Cr(VI) SSL for protection of groundwater at and near the 100-K Source OUs is documented in ECF-HANFORD-11-0165, *Evaluation of Hexavalent Chromium Leach Test Data Conducted on Vadose Zone Sediment Samples from the 100 Area*.

The STOMP 1D 70:30/100:0 Contaminant Source Model as implemented for determination of SSLs uses an irrigation recharge scenario and assumes that either the upper 70 percent of the vadose zone is contaminated (for $K_d \geq 2$ mL/g analytes) or the entire vadose zone is contaminated (for $K_d < 2$ mL/g analytes) below clean fill. Operable unit-length SSLs protective of groundwater for the 100-K OUs calculated using the STOMP 70:30/100:0 Contaminant Source Model are documented in ECF-100KR1-17-0087, *STOMP 1-D Modeling for Determination of Unit-Length Soil Screening Levels and Preliminary Remediation Goals for Waste Sites in the 100-K Source Operable Unit.*

4.2.2 Soil Screening Levels Protective of Surface Water

Unit-length SSLs for the protection of surface water are used in the River Corridor RI/FS process because the OUs in this area abut surface water. Unit-length SSLs for the protection of surface water at and near the 100-K OUs have been derived using the following model:

- STOMP 1D 70:30/100:0 Contaminant Source Model
- For strontium-90, the unit-length SSL for the protection of groundwater at and near the 100-K OUs was derived using the STOMP 1D 100:0 Contaminant Source Model
- The unit-length STOMP 1D surface water protective SSLs for all detected analytes in the 100-K OUs are provided in Table 4-5.

The STOMP 1D 70:30/100:0 Contaminant Source Model for determination of SSLs uses an irrigation recharge scenario and assumes that either the upper 70 percent of the vadose zone is contaminated (for $K_d \geq 2$ mL/g analytes) or the entire vadose zone is contaminated (for $K_d < 2$ mL/g analytes) below clean fill. The model takes no credit for dilution of groundwater by mixing with surface water. Operable unit-specific SSLs protective of surface water for the 100-K OUs calculated using the STOMP 1D 70:30/100:0 Contaminant Source Model are documented in ECF-100KR1-17-0087.

4.3 Preliminary Remediation Goals for the Protection of Groundwater and Surface Water

Unit-length PRGs for the protection of groundwater and surface water are used in the River Corridor RI/FS process and represent a native vegetation recharge scenario. Unit-length SSLs for the protection of surface water at and near the 100-K OUs have been derived using the following model:

- STOMP 1D 70:30/100:0 Contaminant Source Model

4.4 Exposure Point Concentrations

OSWER 9285.6-10, *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*, states that, "an EPC is a conservative estimate of the average chemical concentration in an environmental medium." OSWER Publication 9285.7-081, *Supplemental Guidance to RAGS: Calculating the Concentration Term*, states that, "because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent upper confidence limit (UCL) of the arithmetic mean should be used for this variable."

The EPCs used for comparison to SSLs are the analyte-specific values computed from the post-remediation soil sample results for each waste site decision unit in the 100-K OUs, as described in ECF-100KR1-11-0008, *Computation of Exposure Point Concentrations for the 100-KR-1 and 100-KR-2 Source Operable Units*. The EPCs for each waste site decision unit are presented in Table 4-6 for the 100-K OUs.

4.5 Hanford Site Background

EPA 540-R-01-003, *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites*, provides national policy considerations for application of background data in risk assessment and remedy selection. This policy recommends an approach that addresses site specific background issues in the risk characterization. EPA 540-R-01-003 indicates the following:

> "COPCs that have both release-related and background-related sources should be included in the risk assessment. When concentrations of naturally occurring elements at a site exceed risk-based screening levels, that information should be discussed qualitatively in the risk characterization."

EPA 540-R-01-003 defines background constituents as the following: (1) *anthropogenic* - natural and human-made substances present in the environment because of human activities (not specifically related to the CERCLA release in question), and (2) *naturally occurring* - substances present in the environment in forms that have not been influenced by human activity.

Lognormal 90th percentile background values for the Hanford Site (representative of both naturally occurring and anthropogenic substances) have been developed for inorganic chemicals and identified in DOE/RL-92-24, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Summary Table 2. Radionuclide background values are identified in DOE/RL-96-12, *Hanford Site*

Background: Part 2, Soil Background for Radionuclides, Table 5-1. ECF-HANFORD-11-0038, *Soil Background Data for Interim Use at the Hanford Site*, reports lognormal 90th percentile background values for most of the metals that are absent from DOE/RL-92-24. The analyte-specific background concentrations are presented in Table 4-7.

4.6 Required Detection Limits

The RDL is the lowest concentration that can be reliably measured within specific limits of accuracy and precision under routine laboratory operating conditions. The RDL is specified by the laboratory and is typically 5 – 10 times greater than the method detection limit. In some cases, the RDL is equal to the concentration of the lowest calibration standard. The RDLs presented in this ECF were obtained from DOE/RL-96-17, *Remedial Design Report/Remedial Action Work Plan for the 100 Area*. The analyte-specific RDL values are presented in Tables 4-4 and 4-5.

5 Software Applications

Microsoft Excel® was used to tabulate the data in electronic spreadsheets. These spreadsheets are provided as tables that accompany this ECF. ArcMap® was used to calculate refined representative waste site decision unit lengths.

6 Calculation

COPCs for groundwater protection and surface water protection at the 100-K OUs are identified by comparing EPCs to unit-length SSLs, background concentrations, and RDLs as described in Section 3. Comparison results are provided in summary in Section 7. The comparison tables all share a similar format, providing both the values being compared as well as a “Yes/No” column indicating the outcome of the comparison.

COPCs for groundwater protection and surface water protection at the 100-K Source OUs are identified by comparing EPCs to unit-length PRGs, background concentrations, and RDLs as described in Section 3. Results of the comparisons are presented in Section 7. The tables share a similar format, providing both the values being compared as well as a “Yes/No” column indicating the outcome of the comparison.

7 Results/Conclusions

The results of the SSL and PRG comparisons are provided below.

7.1 Results of the SSL Comparisons

Comparison of the 100-K Source OUs waste site decision unit EPCs to unit-length SSLs for groundwater protection and surface water protection, *as well as soil background concentrations*, are presented in Tables 7-1 and 7-2, respectively. Unit-length SSLs are scaled by the representative length of each waste site decision unit in the general direction of groundwater flow for comparison to EPC values.

Comparison of the 100-K Source OUs waste site decision unit EPCs to soil background concentrations is presented in Table 7-3.

Comparison of the 100-K Source OUs waste site decision unit EPCs to SSLs for groundwater protection and surface water protection, *without consideration of soil background concentrations*, are presented in

---

® Microsoft Excel is a registered product of the Microsoft Corporation.

® ArcMap is a registered product of ESRI.

Tables 7-4 and 7-5, respectively. The selected SSL is the highest value between the unit-length SSL scaled by the representative length of each waste site decision unit in the general direction of groundwater flow, the 90th percentile background concentration, or the RDL for comparison to EPC values.

Comparison results shown in Table 7-4 indicate the 100-K Source OUs have seven COPCs for groundwater protection and includes the following:

- antimony, carbon-14, Cr(VI), iron, nickel, nitrate, and selenium.

Comparison results shown in Table 7-5 indicate the 100-K Source OUs have nine COPCs for surface water protection and includes the following:

- cadmium, carbon-14, copper, Cr(VI), iron, mercury, nickel, selenium, and zinc.

All of the analytes reported with an EPC greater than their respective SSLs were evaluated further. This evaluation consists of reviewing individual reported sample concentrations from each decision unit and evaluating data quality and the basis of the EPC and whether the SSL is less than the respective RDL. For example, the EPC is reviewed to determine if it represents a uniform distribution or whether it represents a single detection above the SSL. Additionally, individual sample concentrations are reviewed to determine if they are within the range of naturally occurring levels, or if the detections represent laboratory contamination.

The results of this evaluation are presented in Table 7-6 for groundwater protection and in Table 7-7 for surface water protection. With the exception of carbon-14 and Cr(VI), the results of this review indicate that the analytes reported with EPCs greater than scaled STOMP 1D SSLs will not be carried forward as COPCs and do not warrant comparison to PRGs developed for protection of groundwater or surface water. The following waste site decision units report EPCs above the scaled groundwater and surface water protection SSL for carbon-14:

- 100-K-6, 100-K-46, 100-K-62, 132-KE-1 (Shallow 1 and Shallow 2)
- 100-K-6 (Shallow)
- 100-K-62 (Shallow)
- 116-K-2 (Deep 2)
- 132-KE-1 (Shallow)

The following waste site decision unit reports an EPC above the groundwater and surface water protection SSL for Cr(VI):

- 116-K-2 (Deep 1)

7.2 Results of the PRG Comparisons

The comparison of EPCs to scaled PRGs protective of groundwater and surface water for the 100-K Source OUs is provided in Table 7-8 and Table 7-9, respectively. The following waste site decision units report EPCs above the scaled PRGs for carbon-14:

- 100-K-6, 100-K-46, 100-K-62, 132-KE-1 (Shallow 1 and Shallow 2)
- 100-K-62 (Shallow)
- 116-K-2 (Deep 2)

The following waste site decision units report EPCs above the scaled groundwater protection and surface water protection PRG for Cr(VI):

- 116-K-2 (Deep 1)

8 References

DOE/RL-92-24, 2001, *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes*, Rev. 4, 2 vols. U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at (last accessed December 21, 2017): http://pdw.hanford.gov/arpir/pdf.cfm?accession=0096062. http://pdw.hanford.gov/arpir/pdf.cfm?accession=0096061.

DOE/RL-96-12, 1996, *Hanford Site Background: Part 2, Soil Background for Radionuclides*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at (last accessed December 21, 2017): http://pdw.hanford.gov/arpir/pdf.cfm?accession=D1808987.

DOE/RL-96-17, 2009, *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, Rev. 6, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Last accessed July 3, 2018. Available at: https://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1112281625

DOE/RL-2011-50, 2012, *Regulatory Basis and Implementation of a Graded Approach to Evaluation of Groundwater Protection*, Rev. 1, United States Department of Energy, Richland Operations Office, Richland, Washington. Available at (last accessed December 21, 2017): http://pdw.hanford.gov/arpir/pdf.cfm?accession=0093361.

ECF-100KR1-11-0008, 2017, Computation of Exposure Point Concentrations for the 100-KR-1 and 100-KR-2 Source Operable Units, CH2M HILL Plateau Remediation Company, Richland, Washington.

ECF-100KR1-17-0087, 2017, STOMP 1-D Modeling for Determination of Unit-Length Soil Screening Levels and Preliminary Remediation Goals for Waste Sites in the 100-K Source Operable Unit, Rev. 0, CH2M HILL Plateau Remediation Company, Richland, Washington.

ECF-HANFORD-11-0038, 2011, *Soil Background Data for Interim Use at the Hanford Site*, Draft, CH2M HILL Plateau Remediation Company, Richland, Washington.

ECF-HANFORD-12-0023, 2018, Groundwater and Surface Water Cleanup Levels and Distribution Coefficients for Nonradiological and Radiological Analytes in the 100 Areas and 300 Area, Rev. 4, CH2M HILL Plateau Remediation Company, Richland, Washington.

EPA 540-R-01-003, 2002, *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites*, OSWER 9285.7-41, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. Last accessed July 3, 2018. Available at: https://www.epa.gov/sites/production/files/2015-11/documents/background.pdf.

EPA/540/R-96/018, 1996, *Soil Screening Guidance: Users Guide*, Publication 9355.4-23, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at (last accessed December 21, 2017): https://www.nrc.gov/docs/ML0824/ML082480252.pdf.

OSWER 9285.6-10, 2002, *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. Available at (last accessed December 21, 2017): https://www.epa.gov/sites/production/files/2015-11/documents/ucl.pdf.

OSWER Publication 9285.7-081, 1992, *Supplemental Guidance to RAGS: Calculating the Concentration Term*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C. Available at (last accessed December 21, 2017): https://rais.ornl.gov/documents/UCLsEPASupGuidance.pdf.

PNNL-15782, 2006, *STOMP Subsurface Transport Over Multiple Phases, Version 4.0: User's Guide*, Pacific Northwest National Laboratory, Richland, Washington. Available at (last accessed December 21, 2017): http://stomp.pnnl.gov/.

Table 4-1. Waste Site Dimensions Parallel to General Groundwater Flow for the 100-KR-1 and 100-KR-2 Source OUs.

Waste Site/Decision Unit	Width in Prominent GW Flow Direction (meters)	Comment
100-K-1	1.0	
100-K-2	117	
100-K-3	1.0	Pipeline
100-K-4	37	
100-K-5	1.7	
100-K-6	2.1	
100-K-7	14	
100-K-8	14	
100-K-9	2.1	
100-K-10	2.0	
100-K-11	2.0	
100-K-12	1.4	
100-K-13	3.5	
100-K-14	1.9	
100-K-15	11	
100-K-16	11	
100-K-18	1.6	
100-K-19	7.0	
100-K-20	2.8	
100-K-21	8.4	
100-K-22	4.4	
100-K-23	8.5	
100-K-24	5.0	
100-K-25	0.45	
100-K-27	6.8	
100-K-28	4.5	
100-K-29	28	
100-K-30	11	
100-K-31	11	
100-K-32	11	
100-K-33	11	
100-K-34	2.9	
100-K-35	2.9	
100-K-36	1.00	
100-K-37	0.77	
100-K-38	1.8	
100-K-39	37	
100-K-42	26	
100-K-43	27	
100-K-46	1.8	
100-K-47	2.5	
100-K-48	5.5	

Table 4-1. Waste Site Dimensions Parallel to General Groundwater Flow for the 100-KR-1 and 100-KR-2 Source OUs.

Waste Site/Decision Unit	Width in Prominent GW Flow Direction (meters)	Comment
100-K-49	7.1	
100-K-50	3.2	
100-K-51	2.8	
100-K-52	0.48	
100-K-53	1.0	Pipeline
100-K-54	1.0	Pipeline
100-K-55	1.0	Pipeline
100-K-56	1.0	Pipeline
100-K-60	1.3	
100-K-61	14	
100-K-62	14	
100-K-63	146	
100-K-66	34	
100-K-67	34	
100-K-68	2.0	
100-K-69	1.4	
100-K-70	3.0	
100-K-71	2.5	
100-K-72	3.5	
100-K-73	2.5	
100-K-74	3.0	
100-K-75	1.4	
100-K-77	3.2	
100-K-79	1.0	Pipeline
100-K-84	6.5	
100-K-89	3.7	
100-K-94	0.68	
100-K-95	131	
100-K-97	0.42	
100-K-98	0.56	
100-K-99	24	
100-K-100	20	
100-K-101	14	
100-K-102	15	
100-K-103	28	
100-K-104	3.5	
100-K-105	11	
100-K-106	4.8	
100-K-107	15	
100-K-108	2.2	
100-K-109	21	
100-K-110	134	

Table 4-1. Waste Site Dimensions Parallel to General Groundwater Flow for the 100-KR-1 and 100-KR-2 Source OUs.

Waste Site/Decision Unit	Width in Prominent GW Flow Direction (meters)	Comment
100-K-112	6.6	
100-K-115	19	
100-K-117	11	
100-K-118	0.99	
100-K-119	80	
100-K-120	15	
100-K-121	0.97	
100-K-122	0.34	
100-K-123	0.18	
100-K-124	10	
100-K-125	7.3	
100-K-126	0.99	
100-K-127	10	
100-K-128	43	
100-K-129	43	
100-K-130	0.92	
100-K-131	3.8	
116-K-1	160	
116-K-2	18	
116-KE-1	1.2	
116-KE-2	1.0	Pipeline
116-KE-3	5.9	
116-KE-4	117	
116-KE-5	37	
116-KE-6A	0.82	
116-KE-6B	0.48	
116-KE-6C	0.99	
116-KE-6D	0.96	
116-KW-1	1.3	
116-KW-2	5.7	
116-KW-3	114	
116-KW-4	37	
118-K-1	246	
118-KE-1	39	
118-KE-2	8.7	
118-KW-1	39	
118-KW-2	8.9	
120-KE-1	1.9	
120-KE-2	0.85	
120-KE-3	5.2	
120-KE-4	6.2	
120-KE-5	6.2	

Table 4-1. Waste Site Dimensions Parallel to General Groundwater Flow for the 100-KR-1 and 100-KR-2 Source OUs.

Waste Site/Decision Unit	Width in Prominent GW Flow Direction (meters)	Comment
120-KE-6	5.4	
120-KE-8	5.5	
120-KE-9	3.8	
120-KW-1	2.0	
120-KW-2	0.92	
120-KW-3	5.0	
120-KW-4	6.2	
120-KW-5	5.2	
120-KW-6	3.0	
120-KW-7	4.0	
126-KE-2	11	
126-KE-3	11	
128-K-2	74	
130-K-1	1.8	
130-K-2	1.8	
130-K-3	12	
130-KE-1	1.00	
130-KE-2	40	
130-KW-1	0.85	
130-KW-2	39	
132-KE-1	4.9	
132-KW-1	4.8	
600-29	197	
1607-K1	1.0	
1607-K2	8.4	
1607-K3	8.7	
1607-K4	1.3	
1607-K5	32	
1607-K6	1.0	
UPR-100-K-1	0.99	

Table 4-4. Summary of Groundwater Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source OUs

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection (pCi-m/g, µg-m/kg)[c]
	Radionuclides			
14596-10-2	Americium-241	200	1.0	92,105
14762-75-5	Carbon-14	0	2.0	57
14762-75-5	Carbon-14[d]	200	2.0	--[e]
10045-97-3	Cesium-137	50	0.10	389,000
10198-40-0	Cobalt-60	50	0.050	--[e]
14683-23-9	Europium-152	200	0.10	--[e]
15585-10-1	Europium-154	200	0.10	--[e]
14391-16-3	Europium-155	200	0.10	--[e]
13981-37-8	Nickel-63	30	30	19,048
13981-16-3	Plutonium-238	200	1.0	--[e]
PU-239/240	Plutonium-239/240	200	1.0	--[e]
10098-97-2	Strontium-90	25	1.0	22,536
10028-17-8	Tritium	0	---	1,040
U-233/234	Uranium-233/234	2.0	1.0	--[f]
15117-96-1	Uranium-235	2.0	0.50	--[f]
7440-61-1	Uranium-238	2.0	1.0	--[f]
	Nonradionuclides			
83-32-9	Acenaphthene	4.9	330	2.62E+06
67-64-1	Acetone	5.75E-04	20	206,903
7429-90-5	Aluminum	1,500	---	--[d]
7440-36-0	Antimony	23	330	186,126
120-12-7	Anthracene	45	600	6.73E+07
12674-11-2	Aroclor-1016	107	17	99,567
11097-69-1	Aroclor-1254	131	17	14,979
11096-82-5	Aroclor-1260	822	17	--[e]
7440-38-2	Arsenic	29	10,000	20,000[g]
7440-39-3	Barium	41	2,000	5.37E+07
56-55-3	Benzo(a)anthracene	358	15	7.67E+06

Table 4-4. Summary of Groundwater Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source OUs

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection (pCi-m/g, µg-m/kg)[c]
50-32-8	Benzo(a)pyrene	969	15	--[e]
205-99-2	Benzo(b)fluoranthene	1,230	15	--[e]
207-08-9	Benzo(k)fluoranthene	1,230	15	--[e]
7440-41-7	Beryllium	790	500	--[e]
117-81-7	Bis(2-ethylhexyl) phthalate	111	330	1.31E+06
7440-42-8	Boron	3.0	2,000	5.38E+06
7440-43-9	Cadmium	6.7	500	18,834
7440-47-3	Chromium	1,000	1,000	--[e]
218-01-9	Chrysene	398	100	3.89E+08
7440-48-4	Cobalt	45	2,000	148,901
7440-50-8	Copper	22	1,000	8.40E+06
53-70-3	Dibenz[a,h]anthracene	1,789	30	--[e]
84-74-2	Di-n-butylphthalate	1.6	330,000	1.43E+06
107-21-1	Ethylene glycol	0.0010	330	463,391
206-44-0	Fluoranthene	49	330	2.30E+07
86-73-7	Fluorene	7.7	330	2.83E+06
16984-48-8	Fluoride	150	5,000	3.89E+08
18540-29-9	Hexavalent Chromium	0.80	500	6,000[h]
193-39-5	Indeno(1,2,3-cd)pyrene	3,470	330	--[e]
7439-89-6	Iron	25	---	1.67E+08
7439-92-1	Lead	10,000	5,000	--[e]
7439-96-5	Manganese	65	5,000	2.34E+07
7439-97-6	Mercury	52	200	79,331
75-09-2	Methylene chloride	0.010	5.0	169
7439-98-7	Molybdenum	20	2,000	953,947
91-20-3	Naphthalene	1.2	330	110,036
7440-02-0	Nickel	65	4,000	6.10E+06
14797-55-8	Nitrate	0	750	1.28E+06
14797-65-0	Nitrite	0	750	93,824
NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0	750	284,316

Table 4-4. Summary of Groundwater Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source OUs

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection (pCi-m/g, µg-m/kg)[c]
129-00-0	Pyrene	68	330	3.22E+07
7782-49-2	Selenium	5.0	1,000	139,329
7440-22-4	Silver	8.3	200	385,420
7440-24-6	Strontium	35	1,000	2.07E+08
7440-28-0	Thallium	71	---	36,766
7440-31-5	Tin	250	10,000	3.89E+08
TPH	Total petroleum hydrocarbons	4.0	---	2.00E+06[i]
TPHDIESEL	Total petroleum hydrocarbons - diesel range	---	---	2.00E+06[i]
TPHDIESELEXT	Total petroleum hydrocarbons - diesel range extended to C36	---	---	2.00E+06[i]
TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	---	---	2.00E+06[i]
7440-61-1	Uranium	70	1,000	2.14E+06
7440-62-2	Vanadium	1,000	2,500	--[e]
7440-66-6	Zinc	62	1,000	2.66E+08

Notes:

a. ECF-HANFORD-12-0023, 2017, Groundwater and Surface Water Cleanup Levels and Distribution Coefficients for Nonradiological and Radiological Analytes in the 100 Areas and 300 Area, Rev. 4, CH2M-HILL Plateau Remediation Company, Richland, Washington. Kd values reported here were used in calculations and may differ in precision (rounding) from values reported in ECF-HANFORD-12-0023, but were derived from the same electronic data set.

b. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6, U.S. Deparment of Energy, Richland Operations Office, Richland, Washington. The STOMP 1D soil screening level for all analytes defaults to the RDL when the calculated value is less than the RDL.

c. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

d. Carbon-14 in this operable unit is present in the graphite form (Kd = 200 mL/g)

e. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

Table 4-4. Summary of Groundwater Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source OUs

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection (pCi-m/g, µg-m/kg)[c]

f. Uranium isotopes are accounted for by converting from activity-based (pCi/g) to mass-based (µg/kg) concentrations and then summing to provide a mass-based total uranium exposure point concentration (identified as Total_U_Isotopes), as described in ECF-100KR1-17-0087.

g. The Hanford Site cleanup value for arsenic is 20 mg/kg based on the letter Issues Associated with Establishing Soil Cleanup Levels for Arsenic published by the Department of Ecology Toxics Cleanup Program on June 11, 2013. This letter indicates that the Method A soil cleanup level of 20 mg/kg can be used to define natural background levels when developing Method B soil cleanup levels for the Hanford Site. While the measured 90th percentile background concentration of arsenic in Hanford soils is about 6.47 mg/kg, the value of 20 mg/kg is used as the applicable cleanup level.

h. The soil screening level for hexavalent chromium is set to 6.0 mg/kg based on the evaluation in ECF-HANFORD-11-0165; this value is not dependent on waste site size

i. The soil screening level for Total Petroleum Hydrocarbons is a default screening level obtained from WAC 173-340-900, Table 747-5, "Residual Saturation Screening

DOE/RL-96-17,Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6 .

ECF-100KR1-17-0087, *Determination of Soil Screening Levels and Preliminary Remediation for Waste Sites in the 100-K Source Operable Units.*

ECF-HANFORD-12-0023, *Groundwater and Surface Water Cleanup Levels and Distribution Coefficients for Nonradiological and Radiological Analytes in the 100 Areas*

Table 4-5. Summary of Surface Water Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source Operable Unit

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection (pCi-m/g, µg-m/kg)[c]
	Radionuclides			
14596-10-2	Americium-241	200	1.0	92,105
14762-75-5	Carbon-14[d]	0	2.0	57
10045-97-3	Cesium-137	50	0.10	389,000
10198-40-0	Cobalt-60	50	0.050	--[d]
14683-23-9	Europium-152	200	0.10	--[d]
15585-10-1	Europium-154	200	0.10	--[d]
14391-16-3	Europium-155	200	0.10	--[d]
13981-37-8	Nickel-63	30	30	19,048
13981-16-3	Plutonium-238	200	1.0	--[d]
PU-239/240	Plutonium-239/240	200	1.0	--[d]
10098-97-2	Strontium-90	25	1.0	22,536
10028-17-8	Tritium	0	---	1,040
U-233/234	Uranium-233/234	2.0	1.0	--[f]
15117-96-1	Uranium-235	2.0	0.50	--[f]
7440-61-1	Uranium-238	2.0	1.0	--[f]
	Nonradionuclides			
83-32-9	Acenaphthene	4.9	330	--[g]
67-64-1	Acetone	5.75E-04	20	--[g]
7429-90-5	Aluminum	1,500	---	--[d]
7440-36-0	Antimony	23	330	--[g]
120-12-7	Anthracene	45	600	--[g]
12674-11-2	Aroclor-1016	107	17	2,788
11097-69-1	Aroclor-1254	131	17	4,766
11096-82-5	Aroclor-1260	822	17	--[e]
7440-38-2	Arsenic	29	10,000	20,000[h]

Table 4-5. Summary of Surface Water Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source Operable Unit

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection (pCi-m/g, µg-m/kg)[c]
7440-39-3	Barium	41	2,000	--[g]
56-55-3	Benzo(a)anthracene	358	15	--[g]
50-32-8	Benzo(a)pyrene	969	15	--[g]
205-99-2	Benzo(b)fluoranthene	1,230	15	--[g]
207-08-9	Benzo(k)fluoranthene	1,230	15	--[g]
7440-41-7	Beryllium	790	500	--[g]
117-81-7	Bis(2-ethylhexyl) phthalate	111	330	--[g]
7440-42-8	Boron	3.0	2,000	--[g]
7440-43-9	Cadmium (Diet)	6.7	500	2,712
7440-47-3	Chromium	1,000	1,000	--[e]
218-01-9	Chrysene	398	100	--[g]
7440-48-4	Cobalt	45	2,000	--[g]
7440-50-8	Copper	22	1,000	129,998
53-70-3	Dibenz[a,h]anthracene	1,789	30	--[g]
84-74-2	Di-n-butylphthalate	1.6	330,000	--[g]
107-21-1	Ethylene glycol	0.0010	330	--[g]
206-44-0	Fluoranthene	49	330	--[g]
86-73-7	Fluorene	7.7	330	--[g]
16984-48-8	Fluoride	150	5,000	--[g]
18540-29-9	Hexavalent Chromium	0.80	500	6,000[i]
193-39-5	Indeno(1,2,3-cd)pyrene	3,470	330	--[g]
7439-89-6	Iron	25	---	1.49E+07
7439-92-1	Lead	10,000	5,000	--[e]
7439-96-5	Manganese	65	5,000	--[g]
7439-97-6	Mercury (Mercuric chloride)	52	200	476
75-09-2	Methylene chloride	0.010	5.0	--[g]

Table 4-5. Summary of Surface Water Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source Operable Unit

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection (pCi-m/g, µg-m/kg)[c]
7439-98-7	Molybdenum	20	2,000	--[g]
91-20-3	Naphthalene	1.2	330	--[g]
7440-02-0	Nickel	65	4,000	3.17E+06
14797-55-8	Nitrate	0	750	--[g]
14797-65-0	Nitrite	0	750	--[g]
NO2+NO3-N	Nitrogen in Nitrite and Nitrate	0	750	--[g]
129-00-0	Pyrene	68	330	--[g]
7782-49-2	Selenium	5.0	1,000	13,933
7440-22-4	Silver	8.3	200	12,526
7440-24-6	Strontium	35	1,000	--[g]
7440-28-0	Thallium	71	---	--[g]
7440-31-5	Tin	250	10,000	--[g]
TPH	Total petroleum hydrocarbons	4.0	---	--[g]
TPHDIESEL	Total petroleum hydrocarbons - diesel range	---	---	--[g]
TPHDIESELEXT	Total petroleum hydrocarbons - diesel range extended to C36	---	---	--[g]
TPH/OILH	Total petroleum hydrocarbons - motor oil (high boiling)	---	---	--[g]
7440-61-1	Uranium	70	1,000	--[g]
7440-62-2	Vanadium	1,000	2,500	--[g]
7440-66-6	Zinc	62	1,000	5.04E+06

Notes:

a. ECF-HANFORD-12-0023, 2017, Groundwater and Surface Water Cleanup Levels and Distribution Coefficients for Nonradiological and Radiological Analytes in

b. DOE/RL-96-17, 2009, Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6, U.S. Deparment of Energy, Richland Operations Office, Richland, Washington. The STOMP 1D soil screening level for all analytes defaults to the RDL when the calculated value is less than the RDL.

Table 4-5. Summary of Surface Water Protective Soil Screening Levels for the 100-KR-1 and 100-KR-2 Source Operable Unit

CAS No.	Analyte	Distribution Coefficient (K_d) Value (mL/g)[a]	Required Detection Limit (pCi/g, µg/kg)[b]	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection (pCi-m/g, µg-m/kg)[c]

c. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

d. Carbon-14 in this operable unit is present in the graphite form (Kd = 200 mL/g)

e. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

f. Uranium isotopes are accounted for by converting from activity-based (pCi/g) to mass-based (µg/kg) concentrations and then summing to provide a mass-based total uranium exposure point concentration (identified as Total_U_Isotopes), as described in ECF-100KR1-17-0087.

g. A soil screening level is not calculated because a surface water quality standard or criterion is not available for the analyte.

h. The Hanford Site cleanup value for arsenic is 20 mg/kg based on the letter Issues Associated with Establishing Soil Cleanup Levels for Arsenic published by the Department of Ecology Toxics Cleanup Program on June 11, 2013. This letter indicates that the Method A soil cleanup level of 20 mg/kg can be used to define natural background levels when developing Method B soil cleanup levels for the Hanford Site. While the measured 90th percentile background concentration of arsenic in Hanford soils is about 6.47 mg/kg, the value of 20 mg/kg is used as the applicable cleanup level.

i. The soil screening level for hexavalent chromium is set to 6.0 mg/kg based on the evaluation in ECF-HANFORD-11-0165; this value is not dependent on waste site size

DOE/RL-96-17,Remedial Design Report/Remedial Action Work Plan for the 100 Area, Rev. 6 .

ECF-100KR1-17-0087, *Determination of Soil Screening Levels and Preliminary Remediation for Waste Sites in the 100-K Source Operable Units.*

ECF-HANFORD-12-0023, *Groundwater and Surface Water Cleanup Levels and Distribution Coefficients for Nonradiological and Radiological Analytes in the 100 Areas and 300 Area* .

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-102_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	595
100-K-102_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,654
100-K-102_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	71,680
100-K-102_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	346
100-K-102_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,027
100-K-102_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	123
100-K-102_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,143
100-K-102_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	11,613
100-K-102_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	18,990
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149
100-K-102_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,047
100-K-102_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	396,776
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593
100-K-102_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,594
100-K-102_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	8,930
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689
100-K-102_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	588
100-K-102_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	81,574
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913
100-K-102_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	445
100-K-102_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,032
100-K-102_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	62,641
100-K-102_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	311
100-K-102_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,082
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962
100-K-102_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,303
100-K-102_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,123
100-K-102_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,143
100-K-102_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	7,073
100-K-102_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	324,038
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211
100-K-102_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	446
100-K-102_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,336
100-K-102_Shallow_2	non-Rad	Nickel	14797-55-8	ug/kg	10,405
100-K-102_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	331
100-K-102_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	31
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478
100-K-102_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	699

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-102_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,497
100-K-102_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	42,202
100-K-102_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	463
100-K-102_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,510
100-K-102_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	99,200
100-K-102_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	440
100-K-102_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,500
100-K-102_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	183
100-K-102_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900
100-K-102_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	13,800
100-K-102_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	20,000
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610
100-K-102_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	9,040
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820
100-K-102_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,400
100-K-102_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	7,700
100-K-102_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	654
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716
100-K-102_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	676
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400
100-K-105_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	7.80E+06
100-K-105_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	130
100-K-105_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,500
100-K-105_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	64,000
100-K-105_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	340
100-K-105_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	87
100-K-105_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,900
100-K-105_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,600
100-K-105_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	14,000
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290
100-K-105_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07
100-K-105_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,600
100-K-105_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	320,000
100-K-105_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	310
100-K-105_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,500
100-K-105_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	5,750
100-K-105_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	500
100-K-105_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	21
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-105_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.17
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660
100-K-105_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	360
100-K-105_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	46,000
100-K-105_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	41,000
100-K-105_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.30E+06
100-K-105_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	96
100-K-105_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,200
100-K-105_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	52,000
100-K-105_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	270
100-K-105_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	55
100-K-105_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	7,300
100-K-105_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,200
100-K-105_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	12,000
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230
100-K-105_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07
100-K-105_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,700
100-K-105_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	270,000
100-K-105_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	300
100-K-105_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,200
100-K-105_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	510
100-K-105_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	18
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570
100-K-105_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	320
100-K-105_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,000
100-K-105_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	41,000
100-K-105_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.70E+06
100-K-105_Shallow_3	non-Rad	Antimony	7440-36-0	ug/kg	120
100-K-105_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,500
100-K-105_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	60,000
100-K-105_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	310
100-K-105_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	50
100-K-105_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,200
100-K-105_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,500
100-K-105_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,000
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160
100-K-105_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07
100-K-105_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,300
100-K-105_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000
100-K-105_Shallow_3	non-Rad	Mercury	7439-97-6	ug/kg	8.8
100-K-105_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	290

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-105_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	10,000
100-K-105_Shallow_3	non-Rad	Selenium	7782-49-2	ug/kg	540
100-K-105_Shallow_3	non-Rad	Silver	7440-22-4	ug/kg	25
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590
100-K-105_Shallow_3	non-Rad	Uranium	7440-61-1	ug/kg	930
100-K-105_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	43,000
100-K-105_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	54,000
100-K-106_Overburden_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,570
100-K-106_Overburden_1	non-Rad	Barium	7440-39-3	ug/kg	61,500
100-K-106_Overburden_1	non-Rad	Beryllium	7440-41-7	ug/kg	159
100-K-106_Overburden_1	non-Rad	Cadmium	7440-43-9	ug/kg	70
100-K-106_Overburden_1	non-Rad	Chromium	7440-47-3	ug/kg	6,450
100-K-106_Overburden_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,060
100-K-106_Overburden_1	non-Rad	Copper	7440-50-8	ug/kg	14,800
100-K-106_Overburden_1	non-Rad	Lead	7439-92-1	ug/kg	5,110
100-K-106_Overburden_1	non-Rad	Manganese	7439-96-5	ug/kg	315,000
100-K-106_Overburden_1	non-Rad	Molybdenum	7439-98-7	ug/kg	431
100-K-106_Overburden_1	non-Rad	Nickel	7440-02-0	ug/kg	9,020
100-K-106_Overburden_1	non-Rad	Nitrate	14797-55-8	ug/kg	5,580
100-K-106_Overburden_1	non-Rad	Silver	7440-22-4	ug/kg	33
100-K-106_Overburden_1	non-Rad	Strontium	7440-24-6	ug/kg	30,800
100-K-106_Overburden_1	non-Rad	Thallium	7440-28-0	ug/kg	115
100-K-106_Overburden_1	non-Rad	Tin	7440-31-5	ug/kg	410
100-K-106_Overburden_1	non-Rad	Uranium	7440-61-1	ug/kg	502
100-K-106_Overburden_1	non-Rad	Vanadium	7440-62-2	ug/kg	46,800
100-K-106_Overburden_1	non-Rad	Zinc	7440-66-6	ug/kg	41,800
100-K-106_Overburden_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,220
100-K-106_Overburden_2	non-Rad	Barium	7440-39-3	ug/kg	59,100
100-K-106_Overburden_2	non-Rad	Beryllium	7440-41-7	ug/kg	360
100-K-106_Overburden_2	non-Rad	Cadmium	7440-43-9	ug/kg	71
100-K-106_Overburden_2	non-Rad	Chromium	7440-47-3	ug/kg	17,300
100-K-106_Overburden_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,230
100-K-106_Overburden_2	non-Rad	Copper	7440-50-8	ug/kg	15,800
100-K-106_Overburden_2	non-Rad	Lead	7439-92-1	ug/kg	6,010
100-K-106_Overburden_2	non-Rad	Manganese	7439-96-5	ug/kg	303,000
100-K-106_Overburden_2	non-Rad	Molybdenum	7439-98-7	ug/kg	497
100-K-106_Overburden_2	non-Rad	Nickel	7440-02-0	ug/kg	13,200
100-K-106_Overburden_2	non-Rad	Nitrate	14797-55-8	ug/kg	10,000
100-K-106_Overburden_2	non-Rad	Selenium	7782-49-2	ug/kg	252
100-K-106_Overburden_2	non-Rad	Silver	7440-22-4	ug/kg	35
100-K-106_Overburden_2	non-Rad	Strontium	7440-24-6	ug/kg	30,200

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-106_Overburden_2	non-Rad	Tin	7440-31-5	ug/kg	534
100-K-106_Overburden_2	non-Rad	Uranium	7440-61-1	ug/kg	460
100-K-106_Overburden_2	non-Rad	Vanadium	7440-62-2	ug/kg	52,400
100-K-106_Overburden_2	non-Rad	Zinc	7440-66-6	ug/kg	47,900
100-K-106_Overburden_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,460
100-K-106_Overburden_3	non-Rad	Barium	7440-39-3	ug/kg	60,400
100-K-106_Overburden_3	non-Rad	Beryllium	7440-41-7	ug/kg	257
100-K-106_Overburden_3	non-Rad	Cadmium	7440-43-9	ug/kg	74
100-K-106_Overburden_3	non-Rad	Chromium	7440-47-3	ug/kg	5,970
100-K-106_Overburden_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,160
100-K-106_Overburden_3	non-Rad	Copper	7440-50-8	ug/kg	15,400
100-K-106_Overburden_3	non-Rad	Lead	7439-92-1	ug/kg	5,050
100-K-106_Overburden_3	non-Rad	Manganese	7439-96-5	ug/kg	288,000
100-K-106_Overburden_3	non-Rad	Molybdenum	7439-98-7	ug/kg	334
100-K-106_Overburden_3	non-Rad	Nickel	7440-02-0	ug/kg	7,750
100-K-106_Overburden_3	non-Rad	Nitrate	14797-55-8	ug/kg	10,800
100-K-106_Overburden_3	non-Rad	Silver	7440-22-4	ug/kg	35
100-K-106_Overburden_3	non-Rad	Strontium	7440-24-6	ug/kg	29,600
100-K-106_Overburden_3	non-Rad	Thallium	7440-28-0	ug/kg	80
100-K-106_Overburden_3	non-Rad	Tin	7440-31-5	ug/kg	391
100-K-106_Overburden_3	non-Rad	Uranium	7440-61-1	ug/kg	673
100-K-106_Overburden_3	non-Rad	Vanadium	7440-62-2	ug/kg	43,600
100-K-106_Overburden_3	non-Rad	Zinc	7440-66-6	ug/kg	41,500
100-K-106_Overburden_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,170
100-K-106_Overburden_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	58,400
100-K-106_Overburden_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	310
100-K-106_Overburden_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	71
100-K-106_Overburden_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	5,990
100-K-106_Overburden_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,370
100-K-106_Overburden_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	15,600
100-K-106_Overburden_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	7,020
100-K-106_Overburden_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	312,000
100-K-106_Overburden_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	398
100-K-106_Overburden_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	8,290
100-K-106_Overburden_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,820
100-K-106_Overburden_Focused_2	non-Rad	Silver	7440-22-4	ug/kg	27
100-K-106_Overburden_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	29,400
100-K-106_Overburden_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	421
100-K-106_Overburden_Focused_2	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	43,000
100-K-106_Overburden_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	740
100-K-106_Overburden_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	54,000
100-K-106_Overburden_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	55,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-106_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	992
100-K-106_Shallow	non-Rad	Barium	7440-39-3	ug/kg	42,600
100-K-106_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	210
100-K-106_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	37
100-K-106_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	2,790
100-K-106_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	6,380
100-K-106_Shallow	non-Rad	Copper	7440-50-8	ug/kg	11,200
100-K-106_Shallow	non-Rad	Lead	7439-92-1	ug/kg	1,990
100-K-106_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	203,000
100-K-106_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	228
100-K-106_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,250
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332
100-K-106_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	292
100-K-106_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	33,000
100-K-106_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	33,200
100-K-106_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,320
100-K-106_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	55,600
100-K-106_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	211
100-K-106_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	59
100-K-106_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,510
100-K-106_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,240
100-K-106_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,100
100-K-106_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,410
100-K-106_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	250,000
100-K-106_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	265
100-K-106_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,170
100-K-106_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	13,100
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370
100-K-106_Shallow_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	367
100-K-106_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	43,500
100-K-106_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	34,600
100-K-106_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,480
100-K-106_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	58,800
100-K-106_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	231
100-K-106_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	52
100-K-106_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	5,370
100-K-106_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	10,200
100-K-106_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,000
100-K-106_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,450
100-K-106_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	399,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490
100-K-106_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	7,310
100-K-106_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,150
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478
100-K-106_Shallow_Focused_2	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	6,500
100-K-106_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	386
100-K-106_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,300
100-K-106_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	40,500
100-K-106_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,750
100-K-106_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	59,800
100-K-106_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	341
100-K-106_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	70
100-K-106_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	5,710
100-K-106_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,780
100-K-106_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,900
100-K-106_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,340
100-K-106_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	326,000
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499
100-K-106_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	7,950
100-K-106_Shallow_Focused_3	non-Rad	Nitrate	14797-55-8	ug/kg	20,900
100-K-106_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	34
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547
100-K-106_Shallow_Focused_3	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	46,000
100-K-106_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	470
100-K-106_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	54,800
100-K-106_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	43,800
100-K-106_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,010
100-K-106_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	49,000
100-K-106_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	187
100-K-106_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	52
100-K-106_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,280
100-K-106_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,950
100-K-106_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300
100-K-106_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	1,830
100-K-106_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	262,000
100-K-106_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	303
100-K-106_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,250
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402
100-K-106_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	356

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-106_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	40,700
100-K-106_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	35,000
100-K-106_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,730
100-K-106_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	53,300
100-K-106_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	319
100-K-106_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	52
100-K-106_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,680
100-K-106_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,960
100-K-106_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	15,000
100-K-106_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	2,760
100-K-106_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	261,000
100-K-106_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	372
100-K-106_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	7,110
100-K-106_Shallow_Focused_5	non-Rad	Selenium	7782-49-2	ug/kg	275
100-K-106_Shallow_Focused_5	non-Rad	Silver	7440-22-4	ug/kg	33
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481
100-K-106_Shallow_Focused_5	non-Rad	Uranium	7440-61-1	ug/kg	488
100-K-106_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	58,000
100-K-106_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	39,800
100-K-106_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,000
100-K-106_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	57,200
100-K-106_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	329
100-K-106_Shallow_Focused_6	non-Rad	Cadmium	7440-43-9	ug/kg	41
100-K-106_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	6,070
100-K-106_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	9,640
100-K-106_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	16,200
100-K-106_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	3,380
100-K-106_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	330,000
100-K-106_Shallow_Focused_6	non-Rad	Molybdenum	7439-98-7	ug/kg	298
100-K-106_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	9,740
100-K-106_Shallow_Focused_6	non-Rad	Nitrate	14797-55-8	ug/kg	10,400
100-K-106_Shallow_Focused_6	non-Rad	Selenium	7782-49-2	ug/kg	253
100-K-106_Shallow_Focused_6	non-Rad	Silver	7440-22-4	ug/kg	25
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465
100-K-106_Shallow_Focused_6	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	50,000
100-K-106_Shallow_Focused_6	non-Rad	Uranium	7440-61-1	ug/kg	478
100-K-106_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	44,300
100-K-106_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	38,600
100-K-109_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,190
100-K-109_Shallow	non-Rad	Barium	7440-39-3	ug/kg	56,735

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-109_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	296
100-K-109_Shallow	non-Rad	Boron	7440-42-8	ug/kg	898
100-K-109_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.022
100-K-109_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,903
100-K-109_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,090
100-K-109_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,732
100-K-109_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,032
100-K-109_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	331,189
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480
100-K-109_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,689
100-K-109_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	7,823
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446
100-K-109_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	456
100-K-109_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	57,582
100-K-109_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	43,302
100-K-109_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	1,900
100-K-109_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	60,200
100-K-109_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	300
100-K-109_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	81
100-K-109_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,900
100-K-109_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,100
100-K-109_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167
100-K-109_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,200
100-K-109_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	359,000
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480
100-K-109_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,500
100-K-109_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	5,050
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900
100-K-109_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	47
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970
100-K-109_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	460
100-K-109_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	75,500
100-K-109_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	56,100
100-K-110_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	7.00E+06
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417
100-K-110_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	8,694

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-110_Shallow	non-Rad	Barium	7440-39-3	ug/kg	73,627
100-K-110_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	326
100-K-110_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	118
100-K-110_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.094
100-K-110_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,294
100-K-110_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,749
100-K-110_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,605
100-K-110_Shallow	Rad	Europium-155	14391-16-3	pCi/g	0.034
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07
100-K-110_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,648
100-K-110_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	412,928
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587
100-K-110_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,586
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813
100-K-110_Shallow	non-Rad	Silver	7440-22-4	ug/kg	38
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258
100-K-110_Shallow	non-Rad	Thallium	7440-28-0	ug/kg	142
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994
100-K-110_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,610
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870
100-K-110_Shallow_focused	non-Rad	Chromium	7440-47-3	ug/kg	8,640
100-K-110_Shallow_focused	non-Rad	Lead	7439-92-1	ug/kg	5,630
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110
100-K-14, 126-KE-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,152
100-K-14, 126-KE-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,120
100-K-14, 126-KE-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,924
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604
100-K-14, 126-KE-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,578
100-K-14, 126-KE-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,836
100-K-14, 126-KE-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,884
100-K-14, 126-KE-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,373
100-K-14, 126-KE-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	398,037
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222
100-K-14, 126-KE-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,912
100-K-14, 126-KE-2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	2,636
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067
100-K-14, 126-KE-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,730
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Arsenic	7440-38-2	ug/kg	2,390
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Barium	7440-39-3	ug/kg	60,009
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Beryllium	7440-41-7	ug/kg	502
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Boron	7440-42-8	ug/kg	1,046
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Chromium	7440-47-3	ug/kg	6,226
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Cobalt	7440-48-4	ug/kg	11,920
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Copper	7440-50-8	ug/kg	18,341
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Lead	7439-92-1	ug/kg	4,184
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Manganese	7439-96-5	ug/kg	392,477
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Molybdenum	7439-98-7	ug/kg	574
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Nickel	7440-02-0	ug/kg	10,109
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Nitrate	14797-55-8	ug/kg	15,456
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Selenium	7782-49-2	ug/kg	2,351
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Strontium	7440-24-6	ug/kg	27,842
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Tin	7440-31-5	ug/kg	583
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Uranium	7440-61-1	ug/kg	490
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Vanadium	7440-62-2	ug/kg	84,281
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Zinc	7440-66-6	ug/kg	53,650
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Arsenic	7440-38-2	ug/kg	1,750
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Barium	7440-39-3	ug/kg	70,219
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Boron	7440-42-8	ug/kg	1,930
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Chromium	7440-47-3	ug/kg	6,300
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Cobalt	7440-48-4	ug/kg	12,300
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Copper	7440-50-8	ug/kg	18,831
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	174
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Lead	7439-92-1	ug/kg	3,900
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Manganese	7439-96-5	ug/kg	453,916
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Mercury	7439-97-6	ug/kg	241
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Molybdenum	7439-98-7	ug/kg	733
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Nickel	7440-02-0	ug/kg	8,930
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Nitrate	14797-55-8	ug/kg	12,309
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Selenium	7782-49-2	ug/kg	2,400
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Strontium	7440-24-6	ug/kg	27,929
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Tin	7440-31-5	ug/kg	672
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Uranium	7440-61-1	ug/kg	498
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Vanadium	7440-62-2	ug/kg	94,900
-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_O	non-Rad	Zinc	7440-66-6	ug/kg	56,500
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Arsenic	7440-38-2	ug/kg	4,335
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Barium	7440-39-3	ug/kg	75,392
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Beryllium	7440-41-7	ug/kg	414

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Boron	7440-42-8	ug/kg	1,701
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Cadmium	7440-43-9	ug/kg	93
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Chromium	7440-47-3	ug/kg	9,100
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Cobalt	7440-48-4	ug/kg	12,643
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Copper	7440-50-8	ug/kg	20,484
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Lead	7439-92-1	ug/kg	6,780
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Manganese	7439-96-5	ug/kg	421,132
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Mercury	7439-97-6	ug/kg	68
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Molybdenum	7439-98-7	ug/kg	622
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Nickel	7440-02-0	ug/kg	11,208
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Nitrate	14797-55-8	ug/kg	24,794
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Selenium	7782-49-2	ug/kg	1,057
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Strontium	7440-24-6	ug/kg	34,319
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Tin	7440-31-5	ug/kg	626
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Uranium	7440-61-1	ug/kg	639
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Vanadium	7440-62-2	ug/kg	87,520
100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-	non-Rad	Zinc	7440-66-6	ug/kg	60,142
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Arsenic	7440-38-2	ug/kg	1,600
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Barium	7440-39-3	ug/kg	54,400
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Beryllium	7440-41-7	ug/kg	210
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Cadmium	7440-43-9	ug/kg	61
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Chromium	7440-47-3	ug/kg	9,600
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Cobalt	7440-48-4	ug/kg	9,400
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Copper	7440-50-8	ug/kg	17,400
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Lead	7439-92-1	ug/kg	2,100
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Manganese	7439-96-5	ug/kg	294,000
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Mercury	7439-97-6	ug/kg	290
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Molybdenum	7439-98-7	ug/kg	510
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Nickel	7440-02-0	ug/kg	6,100
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Selenium	7782-49-2	ug/kg	1,700
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Silver	7440-22-4	ug/kg	53
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Strontium	7440-24-6	ug/kg	20,500
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Tin	7440-31-5	ug/kg	480
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Uranium	7440-61-1	ug/kg	380
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Vanadium	7440-62-2	ug/kg	82,400
K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Sh	non-Rad	Zinc	7440-66-6	ug/kg	55,700
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98
100-K-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300
100-K-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	66,400
100-K-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,520
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	4,321
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Barium	7440-39-3	ug/kg	72,619
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	307
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,129
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	87
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.062
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chromium	7440-47-3	ug/kg	6,988
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	9,620
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Copper	7440-50-8	ug/kg	18,087
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Lead	7439-92-1	ug/kg	5,538
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Manganese	7439-96-5	ug/kg	315,657
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	374
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nickel	7440-02-0	ug/kg	9,603
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	6,970
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Selenium	7782-49-2	ug/kg	285
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Silver	7440-22-4	ug/kg	63
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Uranium	7440-61-1	ug/kg	557
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-235	15117-96-1	pCi/g	0.012
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	47,848
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Zinc	7440-66-6	ug/kg	44,799
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	597
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	42,600
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	133
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	707
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	80
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	0.037
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,120
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	6,600
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,800
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	4,430
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	217,000
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	331
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	7,010
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,100
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	308
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.11

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	28,700
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	31,500
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Arsenic	7440-38-2	ug/kg	2,000
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Barium	7440-39-3	ug/kg	48,000
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Beryllium	7440-41-7	ug/kg	214
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Boron	7440-42-8	ug/kg	664
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cadmium	7440-43-9	ug/kg	56
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chromium	7440-47-3	ug/kg	4,160
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cobalt	7440-48-4	ug/kg	8,180
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Copper	7440-50-8	ug/kg	16,000
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Lead	7439-92-1	ug/kg	2,860
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Manganese	7439-96-5	ug/kg	265,000
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Molybdenum	7439-98-7	ug/kg	195
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nickel	7440-02-0	ug/kg	7,500
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nitrate	14797-55-8	ug/kg	8,010
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Uranium	7440-61-1	ug/kg	344
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-233/234	U-233/234	pCi/g	0.13
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-235	15117-96-1	pCi/g	0.017
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-238	7440-61-1	pCi/g	0.14
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Vanadium	7440-62-2	ug/kg	30,500
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Zinc	7440-66-6	ug/kg	34,100
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	374
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,376

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,180
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	312
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,900
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	97
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.29
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,672
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,148
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,544
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,602
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	344,962
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,440
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	12,632
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	258
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	464
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.018
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.19
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,526
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,004
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,640
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	48,800

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	197
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	0.057
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	2,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	8,120
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,190
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	258,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	224
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	6,370
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	8,680
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	369
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.13
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.017
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.14
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	30,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	33,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,110
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	68,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	303
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,920
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,860
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,520
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	335,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	242
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	11,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.016
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	300

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	485
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-235	15117-96-1	pCi/g	0.0097
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	42,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	42,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	56,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	283
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	56
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	4,960
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	8,130
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	15,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,940
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	266,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	222
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	7,710
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	408
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-235	15117-96-1	pCi/g	0.020
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	35,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	33,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Arsenic	7440-38-2	ug/kg	2,830
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Barium	7440-39-3	ug/kg	62,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Beryllium	7440-41-7	ug/kg	267
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Boron	7440-42-8	ug/kg	958
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cadmium	7440-43-9	ug/kg	70
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chromium	7440-47-3	ug/kg	5,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cobalt	7440-48-4	ug/kg	8,030
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Copper	7440-50-8	ug/kg	14,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Lead	7439-92-1	ug/kg	5,150
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Manganese	7439-96-5	ug/kg	303,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Molybdenum	7439-98-7	ug/kg	223
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Nickel	7440-02-0	ug/kg	9,520
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.020
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Uranium	7440-61-1	ug/kg	506
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-235	15117-96-1	pCi/g	0.0063
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-238	7440-61-1	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Vanadium	7440-62-2	ug/kg	28,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Zinc	7440-66-6	ug/kg	36,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Arsenic	7440-38-2	ug/kg	2,990
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Barium	7440-39-3	ug/kg	69,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Beryllium	7440-41-7	ug/kg	277
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Boron	7440-42-8	ug/kg	1,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cadmium	7440-43-9	ug/kg	75
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chromium	7440-47-3	ug/kg	8,670
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cobalt	7440-48-4	ug/kg	8,980
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Copper	7440-50-8	ug/kg	16,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Lead	7439-92-1	ug/kg	6,080
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Manganese	7439-96-5	ug/kg	318,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Molybdenum	7439-98-7	ug/kg	273
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nickel	7440-02-0	ug/kg	10,300
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nitrate	14797-55-8	ug/kg	5,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Uranium	7440-61-1	ug/kg	506
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-233/234	U-233/234	pCi/g	0.20
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-235	15117-96-1	pCi/g	0.0070
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-238	7440-61-1	pCi/g	0.23
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Vanadium	7440-62-2	ug/kg	36,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Zinc	7440-66-6	ug/kg	38,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Antimony	7440-36-0	ug/kg	319
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Arsenic	7440-38-2	ug/kg	3,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Barium	7440-39-3	ug/kg	55,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Beryllium	7440-41-7	ug/kg	291
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Boron	7440-42-8	ug/kg	2,970
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cadmium	7440-43-9	ug/kg	63
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chromium	7440-47-3	ug/kg	8,390
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cobalt	7440-48-4	ug/kg	8,390
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Copper	7440-50-8	ug/kg	16,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Manganese	7439-96-5	ug/kg	275,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Nickel	7440-02-0	ug/kg	19,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Uranium	7440-61-1	ug/kg	437
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-233/234	U-233/234	pCi/g	0.11
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-235	15117-96-1	pCi/g	0.0099
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Vanadium	7440-62-2	ug/kg	23,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Zinc	7440-66-6	ug/kg	32,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Arsenic	7440-38-2	ug/kg	2,680
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Barium	7440-39-3	ug/kg	61,600

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Beryllium	7440-41-7	ug/kg	342
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Boron	7440-42-8	ug/kg	1,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cadmium	7440-43-9	ug/kg	72
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chromium	7440-47-3	ug/kg	7,710
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cobalt	7440-48-4	ug/kg	8,670
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Copper	7440-50-8	ug/kg	15,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Lead	7439-92-1	ug/kg	5,710
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Manganese	7439-96-5	ug/kg	308,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Molybdenum	7439-98-7	ug/kg	282
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Nickel	7440-02-0	ug/kg	10,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Uranium	7440-61-1	ug/kg	484
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-233/234	U-233/234	pCi/g	0.16
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-235	15117-96-1	pCi/g	0.0077
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Vanadium	7440-62-2	ug/kg	35,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Zinc	7440-66-6	ug/kg	38,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Arsenic	7440-38-2	ug/kg	2,830
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Barium	7440-39-3	ug/kg	62,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Beryllium	7440-41-7	ug/kg	311
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chromium	7440-47-3	ug/kg	4,710
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Cobalt	7440-48-4	ug/kg	8,770
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Copper	7440-50-8	ug/kg	18,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Lead	7439-92-1	ug/kg	4,020

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Manganese	7439-96-5	ug/kg	290,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Molybdenum	7439-98-7	ug/kg	215
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Nickel	7440-02-0	ug/kg	8,650
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Selenium	7782-49-2	ug/kg	301
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Uranium	7440-61-1	ug/kg	436
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-235	15117-96-1	pCi/g	0.0079
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-238	7440-61-1	pCi/g	0.19
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Vanadium	7440-62-2	ug/kg	30,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Zinc	7440-66-6	ug/kg	38,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Arsenic	7440-38-2	ug/kg	3,090
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Barium	7440-39-3	ug/kg	64,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Beryllium	7440-41-7	ug/kg	272
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Boron	7440-42-8	ug/kg	806
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cadmium	7440-43-9	ug/kg	87
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Chromium	7440-47-3	ug/kg	8,670
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cobalt	7440-48-4	ug/kg	8,260
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Copper	7440-50-8	ug/kg	16,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Manganese	7439-96-5	ug/kg	324,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Molybdenum	7439-98-7	ug/kg	272
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nickel	7440-02-0	ug/kg	11,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nitrate	14797-55-8	ug/kg	17,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Uranium	7440-61-1	ug/kg	529
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-235	15117-96-1	pCi/g	0.028
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Vanadium	7440-62-2	ug/kg	35,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Zinc	7440-66-6	ug/kg	40,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Arsenic	7440-38-2	ug/kg	2,610
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Barium	7440-39-3	ug/kg	58,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Beryllium	7440-41-7	ug/kg	296
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chromium	7440-47-3	ug/kg	6,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Cobalt	7440-48-4	ug/kg	8,150
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Copper	7440-50-8	ug/kg	16,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Lead	7439-92-1	ug/kg	4,780
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Manganese	7439-96-5	ug/kg	306,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Molybdenum	7439-98-7	ug/kg	250
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nickel	7440-02-0	ug/kg	9,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nitrate	14797-55-8	ug/kg	4,560
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Uranium	7440-61-1	ug/kg	370
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-233/234	U-233/234	pCi/g	0.17
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-235	15117-96-1	pCi/g	0.0078
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-238	7440-61-1	pCi/g	0.19
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Vanadium	7440-62-2	ug/kg	38,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Zinc	7440-66-6	ug/kg	38,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Arsenic	7440-38-2	ug/kg	2,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Barium	7440-39-3	ug/kg	66,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Beryllium	7440-41-7	ug/kg	229
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cadmium	7440-43-9	ug/kg	64
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Cesium-137	10045-97-3	pCi/g	0.50
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chromium	7440-47-3	ug/kg	6,520
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cobalt	7440-48-4	ug/kg	9,360
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Copper	7440-50-8	ug/kg	18,800

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Lead	7439-92-1	ug/kg	3,690
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Manganese	7439-96-5	ug/kg	331,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Molybdenum	7439-98-7	ug/kg	244
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Nickel	7440-02-0	ug/kg	10,500
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Uranium	7440-61-1	ug/kg	528
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-233/234	U-233/234	pCi/g	0.23
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-235	15117-96-1	pCi/g	0.022
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-238	7440-61-1	pCi/g	0.21
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Vanadium	7440-62-2	ug/kg	35,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Zinc	7440-66-6	ug/kg	39,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Arsenic	7440-38-2	ug/kg	1,290
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Barium	7440-39-3	ug/kg	40,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Beryllium	7440-41-7	ug/kg	175
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Boron	7440-42-8	ug/kg	549
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Chromium	7440-47-3	ug/kg	1,450
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Cobalt	7440-48-4	ug/kg	7,830
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Copper	7440-50-8	ug/kg	14,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Lead	7439-92-1	ug/kg	2,070
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Manganese	7439-96-5	ug/kg	205,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Molybdenum	7439-98-7	ug/kg	175
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Nickel	7440-02-0	ug/kg	5,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Selenium	7782-49-2	ug/kg	282
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Uranium	7440-61-1	ug/kg	373
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-235	15117-96-1	pCi/g	0.030
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-238	7440-61-1	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Vanadium	7440-62-2	ug/kg	24,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Zinc	7440-66-6	ug/kg	27,300
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Arsenic	7440-38-2	ug/kg	2,390
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Barium	7440-39-3	ug/kg	51,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Beryllium	7440-41-7	ug/kg	247
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Boron	7440-42-8	ug/kg	2,010
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cadmium	7440-43-9	ug/kg	62
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chromium	7440-47-3	ug/kg	7,090
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cobalt	7440-48-4	ug/kg	6,860
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Copper	7440-50-8	ug/kg	13,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Lead	7439-92-1	ug/kg	5,070
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Manganese	7439-96-5	ug/kg	247,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Molybdenum	7439-98-7	ug/kg	211
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nickel	7440-02-0	ug/kg	8,640
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nitrate	14797-55-8	ug/kg	4,390
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.018
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Uranium	7440-61-1	ug/kg	371
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-235	15117-96-1	pCi/g	0.018
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-238	7440-61-1	pCi/g	0.15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Vanadium	7440-62-2	ug/kg	23,700
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Zinc	7440-66-6	ug/kg	31,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Arsenic	7440-38-2	ug/kg	1,710
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Barium	7440-39-3	ug/kg	45,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Beryllium	7440-41-7	ug/kg	189
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cadmium	7440-43-9	ug/kg	83

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chromium	7440-47-3	ug/kg	2,370
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cobalt	7440-48-4	ug/kg	7,920
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Copper	7440-50-8	ug/kg	15,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Lead	7439-92-1	ug/kg	3,330
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Manganese	7439-96-5	ug/kg	218,000
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Molybdenum	7439-98-7	ug/kg	234
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Nickel	7440-02-0	ug/kg	5,650
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Uranium	7440-61-1	ug/kg	408
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-233/234	U-233/234	pCi/g	0.12
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-235	15117-96-1	pCi/g	0.014
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Vanadium	7440-62-2	ug/kg	28,100
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Zinc	7440-66-6	ug/kg	30,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Antimony	7440-36-0	ug/kg	392
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Arsenic	7440-38-2	ug/kg	3,830
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Barium	7440-39-3	ug/kg	72,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Beryllium	7440-41-7	ug/kg	357
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Boron	7440-42-8	ug/kg	1,450
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cadmium	7440-43-9	ug/kg	104
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Cesium-137	10045-97-3	pCi/g	0.059
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chromium	7440-47-3	ug/kg	6,600
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cobalt	7440-48-4	ug/kg	9,670
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Copper	7440-50-8	ug/kg	18,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Lead	7439-92-1	ug/kg	6,840
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Manganese	7439-96-5	ug/kg	321,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nickel	7440-02-0	ug/kg	9,750
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nitrate	14797-55-8	ug/kg	4,650
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Selenium	7782-49-2	ug/kg	273
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Silver	7440-22-4	ug/kg	59
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Uranium	7440-61-1	ug/kg	548
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-233/234	U-233/234	pCi/g	0.14
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-235	15117-96-1	pCi/g	0.0061
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Vanadium	7440-62-2	ug/kg	44,400
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Zinc	7440-66-6	ug/kg	45,600
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Americium-241	14596-10-2	pCi/g	0.36
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Arsenic	7440-38-2	ug/kg	1,560
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Barium	7440-39-3	ug/kg	60,100
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Beryllium	7440-41-7	ug/kg	269
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Cadmium	7440-43-9	ug/kg	71
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Cesium-137	10045-97-3	pCi/g	48
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Chromium	7440-47-3	ug/kg	3,330
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Cobalt	7440-48-4	ug/kg	9,100
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Copper	7440-50-8	ug/kg	15,900
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Lead	7439-92-1	ug/kg	2,540
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Manganese	7439-96-5	ug/kg	267,000
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Molybdenum	7439-98-7	ug/kg	315
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Nickel	7440-02-0	ug/kg	6,820
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Plutonium-238	13981-16-3	pCi/g	0.061
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Selenium	7782-49-2	ug/kg	313
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Silver	7440-22-4	ug/kg	29
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Strontium	7440-24-6	ug/kg	26,400
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Strontium-90	10098-97-2	pCi/g	16
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Tin	7440-31-5	ug/kg	410
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Uranium	7440-61-1	ug/kg	437
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Uranium-233/234	U-233/234	pCi/g	0.11
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Uranium-235	15117-96-1	pCi/g	0.026
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	Rad	Uranium-238	7440-61-1	pCi/g	0.15
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Vanadium	7440-62-2	ug/kg	49,200
00-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_	non-Rad	Zinc	7440-66-6	ug/kg	38,500
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Americium-241	14596-10-2	pCi/g	0.038

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Arsenic	7440-38-2	ug/kg	2,741
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Barium	7440-39-3	ug/kg	80,180
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Beryllium	7440-41-7	ug/kg	352
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Cadmium	7440-43-9	ug/kg	78
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Cesium-137	10045-97-3	pCi/g	0.20
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Chromium	7440-47-3	ug/kg	8,442
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Cobalt	7440-48-4	ug/kg	8,993
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Cobalt-60	10198-40-0	pCi/g	0.042
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Copper	7440-50-8	ug/kg	16,132
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Europium-152	14683-23-9	pCi/g	0.10
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Europium-155	14391-16-3	pCi/g	0.092
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Lead	7439-92-1	ug/kg	5,472
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Manganese	7439-96-5	ug/kg	314,579
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Mercury	7439-97-6	ug/kg	30
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Molybdenum	7439-98-7	ug/kg	376
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Nickel	7440-02-0	ug/kg	10,136
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.014
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Selenium	7782-49-2	ug/kg	256
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Silver	7440-22-4	ug/kg	38
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Strontium	7440-24-6	ug/kg	32,033
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Tin	7440-31-5	ug/kg	442
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Uranium	7440-61-1	ug/kg	601
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Uranium-235	15117-96-1	pCi/g	0.012
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	Rad	Uranium-238	7440-61-1	pCi/g	0.18
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Vanadium	7440-62-2	ug/kg	52,793
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Overburden	non-Rad	Zinc	7440-66-6	ug/kg	47,573
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	193
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,726
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,394
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	406
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	83
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,069
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,796
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,640
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,721
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	325,964
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	382

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,444
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Silver	7440-22-4	ug/kg	41
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	530
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	53,139
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,856
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	2.2
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	120
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,000
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	63,000
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	280
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	87
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	4,700
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	12,200
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	17,100
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	18
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	3,800
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Lithium	7439-93-2	ug/kg	4,600
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	364,000
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	430
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,000
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	2,390
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	19
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,800
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	49
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	25,400
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	590

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	460
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.41
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.31
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	60,200
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	48,100
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Americium-241	14596-10-2	pCi/g	0.23
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	1,200
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,100
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	57,800
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	270
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	110
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	1.6
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	6,600
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	73
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,800
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,100
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.23
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	150
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,900
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Lithium	7439-93-2	ug/kg	5,400
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	300,000
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	400
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,400
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,600
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	45
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	27,800
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.96
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	570
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	430
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.60
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.56
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	53,600
0-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	50,300
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035
100-K-3_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	554
100-K-3_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,190
100-K-3_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	98,100

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	416
100-K-3_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	80
100-K-3_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.23
100-K-3_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	9,000
100-K-3_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	10,700
100-K-3_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,900
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44
100-K-3_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,110
100-K-3_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	424,000
100-K-3_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	435
100-K-3_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,300
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047
100-K-3_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	281
100-K-3_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	56
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636
100-K-3_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	815
100-K-3_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-3_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.17
100-K-3_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	47,700
100-K-3_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,600
100-K-3_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,730
100-K-3_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	70,100
100-K-3_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	334
100-K-3_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	833
100-K-3_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	83
100-K-3_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.077
100-K-3_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,540
100-K-3_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,100
100-K-3_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,400
100-K-3_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,460
100-K-3_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	301,000
100-K-3_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	394
100-K-3_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,590
100-K-3_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,330
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054
100-K-3_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	262
100-K-3_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	35
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481
100-K-3_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	522

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-3_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.20
100-K-3_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.21
100-K-3_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	53,700
100-K-3_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	45,000
100-K-30_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600
100-K-30_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	69,700
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640
100-K-30_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,200
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500
100-K-31_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750
100-K-31_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,300
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200
100-K-31_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	400
100-K-32_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,000
100-K-32_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	97,400
100-K-32_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	380
100-K-32_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,900
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700
100-K-33_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,700
100-K-33_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	105,000
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Antimony	7440-36-0	ug/kg	555
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Arsenic	7440-38-2	ug/kg	3,695
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Barium	7440-39-3	ug/kg	67,000
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Beryllium	7440-41-7	ug/kg	339
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Boron	7440-42-8	ug/kg	1,250
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Cadmium	7440-43-9	ug/kg	86
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Chromium	7440-47-3	ug/kg	7,230
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Cobalt	7440-48-4	ug/kg	9,870
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Copper	7440-50-8	ug/kg	18,800

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Lead	7439-92-1	ug/kg	7,863
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Manganese	7439-96-5	ug/kg	347,000
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Mercury	7439-97-6	ug/kg	124
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	452
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Nickel	7440-02-0	ug/kg	10,400
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Nitrate	14797-55-8	ug/kg	12,100
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Selenium	7782-49-2	ug/kg	270
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Silver	7440-22-4	ug/kg	31
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Strontium	7440-24-6	ug/kg	35,041
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Tin	7440-31-5	ug/kg	602
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Uranium	7440-61-1	ug/kg	570
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Vanadium	7440-62-2	ug/kg	46,800
100-K-34, 100-K-102, 1607-K3_Overburden_11A	non-Rad	Zinc	7440-66-6	ug/kg	47,734
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Antimony	7440-36-0	ug/kg	173
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Arsenic	7440-38-2	ug/kg	3,173
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Barium	7440-39-3	ug/kg	66,671
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Beryllium	7440-41-7	ug/kg	351
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Boron	7440-42-8	ug/kg	1,080
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Cadmium	7440-43-9	ug/kg	69
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Chromium	7440-47-3	ug/kg	7,002
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Cobalt	7440-48-4	ug/kg	8,470
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Copper	7440-50-8	ug/kg	17,479
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Lead	7439-92-1	ug/kg	6,796
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Manganese	7439-96-5	ug/kg	327,665
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	362
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Nickel	7440-02-0	ug/kg	9,360
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Nitrate	14797-55-8	ug/kg	5,090
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Silver	7440-22-4	ug/kg	31
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Strontium	7440-24-6	ug/kg	33,130
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Tin	7440-31-5	ug/kg	439
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Uranium	7440-61-1	ug/kg	527
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Vanadium	7440-62-2	ug/kg	48,128
100-K-34, 100-K-102, 1607-K3_Overburden_11B	non-Rad	Zinc	7440-66-6	ug/kg	41,087
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	417
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,670
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,900
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	320
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,760
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	141
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,900
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,300
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	383,474
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	38,265
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	754
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	675
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	73,516
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,300
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	7,700
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	14,800
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,500
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	410
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,900
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	12,000
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	408,000
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	26,600
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	74
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	810
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000
100-K-34_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,620
100-K-34_Shallow	non-Rad	Barium	7440-39-3	ug/kg	53,400
100-K-34_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	412
100-K-34_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,150
100-K-34_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,600
100-K-34_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,600
100-K-34_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,960

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-34_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	415,000
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641
100-K-34_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,360
100-K-34_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	5,890
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480
100-K-34_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	490
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400
100-K-34_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,700
100-K-36_Deep_Focused	non-Rad	Antimony	7440-36-0	ug/kg	315
100-K-36_Deep_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,990
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000
100-K-36_Deep_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	766
100-K-36_Deep_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,320
100-K-36_Deep_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	175
100-K-36_Deep_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,700
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000
100-K-36_Deep_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	4,250
100-K-36_Deep_Focused	non-Rad	Silver	7440-22-4	ug/kg	94
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210
100-K-36_Deep_Focused	non-Rad	Uranium	7440-61-1	ug/kg	1,190
100-K-36_Deep_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.14
100-K-36_Deep_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.14
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000
100-K-36_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,440
100-K-36_Shallow	non-Rad	Barium	7440-39-3	ug/kg	74,300
100-K-36_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	303
100-K-36_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,010
100-K-36_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77
100-K-36_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,310
100-K-36_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,020
100-K-36_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,600
100-K-36_Shallow	non-Rad	Lead	7439-92-1	ug/kg	3,980

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-36_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	288,000
100-K-36_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	419
100-K-36_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,300
100-K-36_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	18,900
100-K-36_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452
100-K-36_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	461
100-K-36_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.19
100-K-36_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-36_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	45,500
100-K-36_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	42,800
100-K-4_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,884
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000
100-K-4_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	200
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700
100-K-4_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.021
100-K-4_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,570
100-K-4_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,770
100-K-4_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,000
100-K-4_Deep	non-Rad	Lead	7439-92-1	ug/kg	4,275
100-K-4_Deep	non-Rad	Lithium	7439-93-2	ug/kg	5,130
100-K-4_Deep	non-Rad	Manganese	7439-96-5	ug/kg	353,591
100-K-4_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	385
100-K-4_Deep	non-Rad	Nickel	7440-02-0	ug/kg	6,416
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430
100-K-4_Deep	non-Rad	Uranium	7440-61-1	ug/kg	1,030
100-K-4_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.42
100-K-4_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.69
100-K-4_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	59,126
100-K-4_Deep	non-Rad	Zinc	7440-66-6	ug/kg	37,800
100-K-4_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	320
100-K-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,410
100-K-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	72,700
100-K-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	250
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800
100-K-4_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	120
100-K-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.12
100-K-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,200
100-K-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,550

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,000
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325
100-K-4_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	10,256
100-K-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	313,000
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483
100-K-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,658
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516
100-K-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	640
100-K-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.73
100-K-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.70
100-K-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	55,990
100-K-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,213
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43
100-K-46_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,180
100-K-46_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	5,180
100-K-46_Deep	non-Rad	Barium	7440-39-3	ug/kg	79,500
100-K-46_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	436
100-K-46_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,130
100-K-46_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	78
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500
100-K-46_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	11,200
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000
100-K-46_Deep	non-Rad	Lead	7439-92-1	ug/kg	6,930
100-K-46_Deep	non-Rad	Lithium	7439-93-2	ug/kg	7,110
100-K-46_Deep	non-Rad	Manganese	7439-96-5	ug/kg	416,000
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300
100-K-46_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	4,430
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33
100-K-46_Deep	non-Rad	Silver	7440-22-4	ug/kg	102
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720
100-K-46_Deep	non-Rad	Uranium	7440-61-1	ug/kg	583
100-K-46_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-46_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.15
100-K-46_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	41,400

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-46_Deep	non-Rad	Zinc	7440-66-6	ug/kg	46,500
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,330
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Barium	7440-39-3	ug/kg	53,800
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	253
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	59
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.67
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,420
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,660
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,800
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Lead	7439-92-1	ug/kg	2,070
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Manganese	7439-96-5	ug/kg	248,000
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	332
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Nickel	7440-02-0	ug/kg	5,810
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Silver	7440-22-4	ug/kg	27
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Uranium	7440-61-1	ug/kg	389
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.11
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.12
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	58,700
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Zinc	7440-66-6	ug/kg	39,700
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16
100-K-50, 1607-K2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,960
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4
100-K-50, 1607-K2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,752
100-K-50, 1607-K2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,832
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27
100-K-50, 1607-K2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,384
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011
100-K-50, 1607-K2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,916
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-50, 1607-K2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,506
100-K-50, 1607-K2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,182
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70
100-K-50, 1607-K2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,809
100-K-50, 1607-K2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,821
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565
100-K-50, 1607-K2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,105
100-K-50, 1607-K2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	21,751
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785
100-K-50, 1607-K2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	4,217
100-K-50, 1607-K2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	80,081
100-K-50, 1607-K2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,702
100-K-53_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,836
100-K-53_Shallow	non-Rad	Barium	7440-39-3	ug/kg	57,754
100-K-53_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	335
100-K-53_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	121
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2
100-K-53_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,366
100-K-53_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,340
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102
100-K-53_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,593
100-K-53_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	7,398
100-K-53_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	349,137
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869
100-K-53_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,466
100-K-53_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,885
100-K-53_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	749
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509
100-K-53_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	542
100-K-53_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	75,198
100-K-53_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	54,691
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29
100-K-55:1_Overburden	Rad	Cesium-137	10045-97-3	pCi/g	0.34
100-K-55:1_Overburden	Rad	Cobalt-60	10198-40-0	pCi/g	0.027
100-K-55:1_Overburden	Rad	Europium-152	14683-23-9	pCi/g	0.33
100-K-55:1_Overburden	Rad	Europium-154	15585-10-1	pCi/g	0.099
100-K-55:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.28
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23
100-K-55:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.61
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37
100-K-55:1_Shallow_Focused	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,313
100-K-55:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.70
100-K-55:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.78
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0
100-K-56:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.0
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3
100-K-56:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.31
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50
100-K-56:1_Shallow_Focused	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,444
100-K-56:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.45
100-K-56:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.49
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Antimony	7440-36-0	ug/kg	354
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Arsenic	7440-38-2	ug/kg	2,666
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Barium	7440-39-3	ug/kg	65,383
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Beryllium	7440-41-7	ug/kg	286
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Boron	7440-42-8	ug/kg	8,396
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Carbon-14	14762-75-5	pCi/g	8.4
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Cesium-137	10045-97-3	pCi/g	0.31

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Chromium	7440-47-3	ug/kg	7,033
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Cobalt	7440-48-4	ug/kg	9,513
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Copper	7440-50-8	ug/kg	17,449
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	72
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Lead	7439-92-1	ug/kg	4,922
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Lithium	7439-93-2	ug/kg	5,626
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Manganese	7439-96-5	ug/kg	351,498
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Mercury	7439-97-6	ug/kg	68
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Molybdenum	7439-98-7	ug/kg	498
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Nickel	7440-02-0	ug/kg	9,205
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Selenium	7782-49-2	ug/kg	1,826
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Strontium	7440-24-6	ug/kg	27,978
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Strontium-90	10098-97-2	pCi/g	0.97
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Tin	7440-31-5	ug/kg	479
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Uranium	7440-61-1	ug/kg	448
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Uranium-235	15117-96-1	pCi/g	0.019
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Vanadium	7440-62-2	ug/kg	59,056
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Overburden	non-Rad	Zinc	7440-66-6	ug/kg	46,917
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,339
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	66,573
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	318
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,945
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	88
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,914
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,853
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	16,707
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	7,036
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Lithium	7439-93-2	ug/kg	6,623
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	317,896
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,860
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,545
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	270
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	59
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	518
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-235	15117-96-1	pCi/g	0.015
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	40,247
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	40,250
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,925
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	73,256
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	422
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	896
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	92
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,333
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	11,423
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	19,939
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,256
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Lithium	7439-93-2	ug/kg	8,361
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	376,144
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	10,901
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,216
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	324
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	75
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	591
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.18
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-235	15117-96-1	pCi/g	0.022
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.18
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	64,300
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	51,024

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055
100-K-6_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,280
100-K-6_Shallow	non-Rad	Barium	7440-39-3	ug/kg	61,100
100-K-6_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	339
100-K-6_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	81
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35
100-K-6_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.51
100-K-6_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,290
100-K-6_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,310
100-K-6_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,700
100-K-6_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,070
100-K-6_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	7,300
100-K-6_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	279,000
100-K-6_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270
100-K-6_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,270
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042
100-K-6_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477
100-K-6_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	477
100-K-6_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16
100-K-6_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.019
100-K-6_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.20
100-K-6_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	42,300
100-K-6_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	40,700
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17
100-K-62_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,290
100-K-62_Shallow	non-Rad	Barium	7440-39-3	ug/kg	50,500
100-K-62_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	228
100-K-62_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	55
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20
100-K-62_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.84
100-K-62_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	3,950
100-K-62_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,370
100-K-62_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,900
100-K-62_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,330
100-K-62_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	2,900
100-K-62_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	261,000
100-K-62_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	303
100-K-62_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,970
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-62_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	312
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383
100-K-62_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	357
100-K-62_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.12
100-K-62_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.013
100-K-62_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16
100-K-62_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	47,000
100-K-62_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	35,000
100-K-63_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	190
100-K-63_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,008
100-K-63_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	69,197
100-K-63_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	345
100-K-63_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	2,954
100-K-63_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	189
100-K-63_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.31
100-K-63_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,051
100-K-63_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,147
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023
100-K-63_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,275
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152
100-K-63_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	9,659
100-K-63_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	362,077
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14
100-K-63_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	450
100-K-63_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	13,324
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290
100-K-63_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	55
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937
100-K-63_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	516
100-K-63_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,351
100-K-63_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	58,669
100-K-63_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	316
100-K-63_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,876
100-K-63_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	78,317
100-K-63_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	353

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-63_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,021
100-K-63_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	178
100-K-63_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.41
100-K-63_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	17,235
100-K-63_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,831
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041
100-K-63_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	16,680
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047
100-K-63_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	328,776
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675
100-K-63_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	15,105
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140
100-K-63_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.16
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467
100-K-63_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	690
100-K-63_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,404
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2
100-K-77_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,110
100-K-77_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,888
100-K-77_Shallow	non-Rad	Barium	7440-39-3	ug/kg	84,028
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2
100-K-77_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	410
100-K-77_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	277
100-K-77_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.47
100-K-77_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	16,273
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13
100-K-77_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,800
100-K-77_Shallow	non-Rad	Copper	7440-50-8	ug/kg	18,900
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17
100-K-77_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,200
100-K-77_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	12,203
100-K-77_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389
100-K-77_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	13,419
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160
100-K-77_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	771
100-K-77_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,900
100-K-77_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,200
100-K-78_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.08E+07
100-K-78_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	391
100-K-78_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,330
100-K-78_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,300
100-K-78_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	357
100-K-78_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,570
100-K-78_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	136
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7
100-K-78_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.32
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000
100-K-78_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,110
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073
100-K-78_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27
100-K-78_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.96E+07
100-K-78_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,380
100-K-78_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	288,000
100-K-78_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	452
100-K-78_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,800
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2
100-K-78_Shallow_Focused	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,774
100-K-78_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.84
100-K-78_Shallow_Focused	Rad	Uranium-235	15117-96-1	pCi/g	0.048
100-K-78_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.93
100-K-78_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	42,900
100-K-78_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,000
100-K-84_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.24E+06
100-K-84_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	6,390
100-K-84_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,104
100-K-84_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	555
100-K-84_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,361
100-K-84_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	66
100-K-84_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,253

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-84_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,127
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206
100-K-84_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.49E+07
100-K-84_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,746
100-K-84_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	339,331
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493
100-K-84_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	345
100-K-84_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,755
100-K-84_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	58,919
100-K-84_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	52,211
100-K-85_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	7.65E+06
100-K-85_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
100-K-85_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	56,700
100-K-85_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	230
100-K-85_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,100
100-K-85_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	62
100-K-85_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,800
100-K-85_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,400
100-K-85_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,100
100-K-85_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.27E+07
100-K-85_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,800
100-K-85_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	327,000
100-K-85_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	9.9
100-K-85_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	360
100-K-85_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,900
100-K-85_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	52,800
100-K-85_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	46,500
100-K-86_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.78E+06
100-K-86_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	470
100-K-86_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
100-K-86_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,100
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12
100-K-86_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	430
100-K-86_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,900
100-K-86_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	58
100-K-86_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17
100-K-86_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,900
100-K-86_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-86_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.38E+07
100-K-86_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,000
100-K-86_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	399,000
100-K-86_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300
100-K-86_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	10,500
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	84,000
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	160,000
100-K-86_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	58,900
100-K-86_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	48,800
100-K-88_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.35E+06
100-K-88_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	890
100-K-88_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	9,100
100-K-88_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	103,000
100-K-88_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500
100-K-88_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,400
100-K-88_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	4,400
100-K-88_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,000
100-K-88_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.34E+07
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100
100-K-88_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	258,000
100-K-88_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	7.2
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980
100-K-88_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,100
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200
100-K-88_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	33,600
100-K-88_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	52,100
100-K-89, 600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07
100-K-89, 600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	434
100-K-89, 600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	4,084
100-K-89, 600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	80,487
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65
100-K-89, 600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	686
100-K-89, 600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	2,117
100-K-89, 600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	88
100-K-89, 600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	12,216
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47
100-K-89, 600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,924
100-K-89, 600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,869

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88
100-K-89, 600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07
100-K-89, 600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,445
100-K-89, 600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	406,274
100-K-89, 600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	5.7
100-K-89, 600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270
100-K-89, 600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,496
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	31,656
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	59,899
100-K-89, 600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	60,142
100-K-89, 600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	47,545
100-K-89, 600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.09E+07
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26
100-K-89, 600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	4,100
100-K-89, 600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	15,400
100-K-89, 600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	84,500
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260
100-K-89, 600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	710
100-K-89, 600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,500
100-K-89, 600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130
100-K-89, 600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,200
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250
100-K-89, 600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,600
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42
100-K-89, 600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.46E+07
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900
100-K-89, 600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	410,000
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16
100-K-89, 600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	440
100-K-89, 600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	12,800
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	90,000
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	140,000
100-K-89, 600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	57,600
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-90_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.65E+06
100-K-90_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	17,000
100-K-90_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	58
100-K-90_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	1,400
100-K-90_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	1,600
100-K-90_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	3,600
100-K-90_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	4.25E+06
100-K-90_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,700
100-K-90_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	61,700
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17
100-K-90_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	350
100-K-90_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	1,900
100-K-90_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	11,000
100-K-90_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	14,100
100-K-91_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06
100-K-91_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300
100-K-91_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	62,100
100-K-91_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	320
100-K-91_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000
100-K-91_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,800
100-K-91_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,800
100-K-91_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	13,500
100-K-91_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.74E+07
100-K-91_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,300
100-K-91_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	291,000
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700
100-K-91_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,600
100-K-91_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	36,800
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000
100-K-92_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.86E+06
100-K-92_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,900
100-K-92_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	70,900
100-K-92_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	390
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76
100-K-92_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,300
100-K-92_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	140
100-K-92_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600
100-K-92_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,800
100-K-92_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216
100-K-92_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.09E+07
100-K-92_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	8,300

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
100-K-92_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	362,000
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700
100-K-92_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,200
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	14,000
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	29,000
100-K-92_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	46,400
100-K-92_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,100
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	38,541
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,020
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15
116-K-1_Deep	non-Rad	Chromium	7440-47-3	ug/kg	14,607
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6
116-K-1_Overburden	Rad	Cesium-137	10045-97-3	pCi/g	0.28
116-K-1_Overburden	non-Rad	Chromium	7440-47-3	ug/kg	12,619
116-K-1_Overburden	Rad	Europium-152	14683-23-9	pCi/g	0.26
116-K-1_Overburden	Rad	Strontium-90	10098-97-2	pCi/g	0.79
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2
116-K-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	13,705
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7
116-K-2_Deep_1	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,181
116-K-2_Deep_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.86
116-K-2_Deep_1	Rad	Uranium-235	15117-96-1	pCi/g	0.044
116-K-2_Deep_1	Rad	Uranium-238	7440-61-1	pCi/g	0.73
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7
116-K-2_Deep_2	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,180
116-K-2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.75
116-K-2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.73
116-K-2_Overburden	Rad	Cesium-137	10045-97-3	pCi/g	0.094
116-K-2_Overburden	Rad	Europium-152	14683-23-9	pCi/g	0.19
116-K-2_Overburden	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	292
116-K-2_Overburden	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,027
116-K-2_Overburden	Rad	Uranium-233/234	U-233/234	pCi/g	0.66
116-K-2_Overburden	Rad	Uranium-238	7440-61-1	pCi/g	0.68
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0
116-K-2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.63
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19
116-K-2_Shallow_1	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,823
116-K-2_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.67
116-K-2_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.61
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0
116-K-2_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.15
116-K-2_Shallow_2	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,988
116-K-2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.73
116-K-2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.67
116-KE-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.22
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21
116-KE-4_Shallow	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,660
116-KE-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.61
116-KE-4_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.020
116-KE-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.56
116-KE-5_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700
116-KE-5_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	100,000
116-KE-5_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	195
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53
116-KW-3_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.18
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92
116-KW-3_Shallow	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,924
116-KW-3_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.66
116-KW-3_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.039
116-KW-3_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.65
116-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600
116-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	59,300
116-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,100
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240
116-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,500
118-K-1_Overburden_12	non-Rad	Aluminum	7429-90-5	ug/kg	9.09E+06

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_Overburden_12	non-Rad	Arsenic	7440-38-2	ug/kg	3,100
118-K-1_Overburden_12	non-Rad	Barium	7440-39-3	ug/kg	71,962
118-K-1_Overburden_12	non-Rad	Beryllium	7440-41-7	ug/kg	353
118-K-1_Overburden_12	non-Rad	Boron	7440-42-8	ug/kg	1,688
118-K-1_Overburden_12	non-Rad	Cadmium	7440-43-9	ug/kg	112
118-K-1_Overburden_12	Rad	Cesium-137	10045-97-3	pCi/g	0.11
118-K-1_Overburden_12	non-Rad	Chromium	7440-47-3	ug/kg	10,588
118-K-1_Overburden_12	non-Rad	Cobalt	7440-48-4	ug/kg	8,715
118-K-1_Overburden_12	non-Rad	Copper	7440-50-8	ug/kg	17,707
118-K-1_Overburden_12	non-Rad	Iron	7439-89-6	ug/kg	2.78E+07
118-K-1_Overburden_12	non-Rad	Lead	7439-92-1	ug/kg	4,500
118-K-1_Overburden_12	non-Rad	Manganese	7439-96-5	ug/kg	392,000
118-K-1_Overburden_12	non-Rad	Molybdenum	7439-98-7	ug/kg	466
118-K-1_Overburden_12	non-Rad	Nickel	7440-02-0	ug/kg	9,880
118-K-1_Overburden_12	non-Rad	Vanadium	7440-62-2	ug/kg	74,257
118-K-1_Overburden_12	non-Rad	Zinc	7440-66-6	ug/kg	51,000
118-K-1_Overburden_13	non-Rad	Aluminum	7429-90-5	ug/kg	9.44E+06
118-K-1_Overburden_13	non-Rad	Arsenic	7440-38-2	ug/kg	2,760
118-K-1_Overburden_13	non-Rad	Barium	7440-39-3	ug/kg	70,500
118-K-1_Overburden_13	non-Rad	Beryllium	7440-41-7	ug/kg	343
118-K-1_Overburden_13	non-Rad	Boron	7440-42-8	ug/kg	1,680
118-K-1_Overburden_13	non-Rad	Cadmium	7440-43-9	ug/kg	112
118-K-1_Overburden_13	Rad	Cesium-137	10045-97-3	pCi/g	0.084
118-K-1_Overburden_13	non-Rad	Chromium	7440-47-3	ug/kg	10,600
118-K-1_Overburden_13	non-Rad	Cobalt	7440-48-4	ug/kg	7,380
118-K-1_Overburden_13	non-Rad	Copper	7440-50-8	ug/kg	15,100
118-K-1_Overburden_13	non-Rad	Iron	7439-89-6	ug/kg	2.48E+07
118-K-1_Overburden_13	non-Rad	Lead	7439-92-1	ug/kg	4,980
118-K-1_Overburden_13	non-Rad	Manganese	7439-96-5	ug/kg	373,000
118-K-1_Overburden_13	non-Rad	Molybdenum	7439-98-7	ug/kg	424
118-K-1_Overburden_13	non-Rad	Nickel	7440-02-0	ug/kg	10,500
118-K-1_Overburden_13	non-Rad	Vanadium	7440-62-2	ug/kg	64,600
118-K-1_Overburden_13	non-Rad	Zinc	7440-66-6	ug/kg	49,500
118-K-1_P1_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06
118-K-1_P1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
118-K-1_P1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	61,500
118-K-1_P1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	600
118-K-1_P1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,300
118-K-1_P1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	200
118-K-1_P1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,000
118-K-1_P1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,300
118-K-1_P1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	17,875

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P1_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.86E+07
118-K-1_P1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,680
118-K-1_P1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	366,000
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588
118-K-1_P1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	11,600
118-K-1_P1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	73,527
118-K-1_P1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	56,000
118-K-1_P1_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	8.68E+06
118-K-1_P1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	4,288
118-K-1_P1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	74,500
118-K-1_P1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	388
118-K-1_P1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,600
118-K-1_P1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	288
118-K-1_P1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.18
118-K-1_P1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	12,792
118-K-1_P1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,972
118-K-1_P1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	22,271
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33
118-K-1_P1_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	2.81E+07
118-K-1_P1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	6,680
118-K-1_P1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	389,000
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776
118-K-1_P1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	13,200
118-K-1_P1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	71,916
118-K-1_P1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	75,395
118-K-1_P1_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	8.17E+06
118-K-1_P1_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,819
118-K-1_P1_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	66,135
118-K-1_P1_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	700
118-K-1_P1_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,425
118-K-1_P1_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	200
118-K-1_P1_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	11,165
118-K-1_P1_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,800
118-K-1_P1_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	16,900
118-K-1_P1_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	3.36E+07
118-K-1_P1_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,143
118-K-1_P1_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	391,000
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588
118-K-1_P1_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	11,000
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500
118-K-1_P1_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	60,700
118-K-1_P1_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	1.03E+07

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P1_Shallow_4	non-Rad	Antimony	7440-36-0	ug/kg	400
118-K-1_P1_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	5,303
118-K-1_P1_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	88,103
118-K-1_P1_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	725
118-K-1_P1_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	2,411
118-K-1_P1_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	337
118-K-1_P1_Shallow_4	Rad	Cesium-137	10045-97-3	pCi/g	0.32
118-K-1_P1_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	14,500
118-K-1_P1_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,924
118-K-1_P1_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	19,645
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13
118-K-1_P1_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.57E+07
118-K-1_P1_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	6,506
118-K-1_P1_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	400,414
118-K-1_P1_Shallow_4	non-Rad	Mercury	7439-97-6	ug/kg	10
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746
118-K-1_P1_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	13,367
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6
118-K-1_P1_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,733
118-K-1_P1_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	56,062
118-K-1_P1_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	9.57E+06
118-K-1_P1_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	3,708
118-K-1_P1_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	72,800
118-K-1_P1_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	700
118-K-1_P1_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,900
118-K-1_P1_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	200
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5
118-K-1_P1_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	12,800
118-K-1_P1_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	10,275
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082
118-K-1_P1_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,400
118-K-1_P1_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	2.87E+07
118-K-1_P1_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	5,650
118-K-1_P1_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	416,000
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride	75-09-2	ug/kg	6.0
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600
118-K-1_P1_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	13,483
118-K-1_P1_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	77,441
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86
118-K-1_P1_Shallow_5	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,355
118-K-1_P1_Shallow_5	Rad	Uranium-233/234	U-233/234	pCi/g	1.0

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P1_Shallow_5	Rad	Uranium-238	7440-61-1	pCi/g	0.79
118-K-1_P1_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	74,400
118-K-1_P1_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	58,098
118-K-1_P1_Shallow_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.76E+06
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093
118-K-1_P1_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	4,800
118-K-1_P1_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	68,600
118-K-1_P1_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	400
118-K-1_P1_Shallow_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,300
118-K-1_P1_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	200
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7
118-K-1_P1_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	10,500
118-K-1_P1_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,800
118-K-1_P1_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	21,200
118-K-1_P1_Shallow_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	2.82E+07
118-K-1_P1_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	6,600
118-K-1_P1_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	408,000
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600
118-K-1_P1_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	11,400
118-K-1_P1_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	18,100
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0
118-K-1_P1_Shallow_Focused_1	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,724
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.62
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.046
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57
118-K-1_P1_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	69,700
118-K-1_P1_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	57,500
118-K-1_P2_Deep_2	non-Rad	Aluminum	7429-90-5	ug/kg	4.93E+06
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30
118-K-1_P2_Deep_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,380
118-K-1_P2_Deep_2	non-Rad	Barium	7440-39-3	ug/kg	50,741
118-K-1_P2_Deep_2	non-Rad	Beryllium	7440-41-7	ug/kg	235
118-K-1_P2_Deep_2	non-Rad	Boron	7440-42-8	ug/kg	648
118-K-1_P2_Deep_2	non-Rad	Cadmium	7440-43-9	ug/kg	119
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5
118-K-1_P2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	0.093
118-K-1_P2_Deep_2	non-Rad	Chromium	7440-47-3	ug/kg	5,327
118-K-1_P2_Deep_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,270
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23
118-K-1_P2_Deep_2	non-Rad	Copper	7440-50-8	ug/kg	14,311

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46
118-K-1_P2_Deep_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07
118-K-1_P2_Deep_2	non-Rad	Lead	7439-92-1	ug/kg	3,034
118-K-1_P2_Deep_2	non-Rad	Manganese	7439-96-5	ug/kg	289,000
118-K-1_P2_Deep_2	non-Rad	Molybdenum	7439-98-7	ug/kg	307
118-K-1_P2_Deep_2	non-Rad	Nickel	7440-02-0	ug/kg	8,045
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11
118-K-1_P2_Deep_2	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,901
118-K-1_P2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.80
118-K-1_P2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.64
118-K-1_P2_Deep_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,754
118-K-1_P2_Deep_2	non-Rad	Zinc	7440-66-6	ug/kg	59,990
118-K-1_P2_Deep_3	non-Rad	Aluminum	7429-90-5	ug/kg	4.75E+06
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24
118-K-1_P2_Deep_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,740
118-K-1_P2_Deep_3	non-Rad	Barium	7440-39-3	ug/kg	47,321
118-K-1_P2_Deep_3	non-Rad	Beryllium	7440-41-7	ug/kg	217
118-K-1_P2_Deep_3	non-Rad	Boron	7440-42-8	ug/kg	616
118-K-1_P2_Deep_3	non-Rad	Cadmium	7440-43-9	ug/kg	62
118-K-1_P2_Deep_3	Rad	Carbon-14	14762-75-5	pCi/g	2.3
118-K-1_P2_Deep_3	Rad	Cesium-137	10045-97-3	pCi/g	0.77
118-K-1_P2_Deep_3	non-Rad	Chromium	7440-47-3	ug/kg	4,002
118-K-1_P2_Deep_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,197
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69
118-K-1_P2_Deep_3	non-Rad	Copper	7440-50-8	ug/kg	13,000
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43
118-K-1_P2_Deep_3	non-Rad	Iron	7439-89-6	ug/kg	2.22E+07
118-K-1_P2_Deep_3	non-Rad	Lead	7439-92-1	ug/kg	2,370
118-K-1_P2_Deep_3	non-Rad	Manganese	7439-96-5	ug/kg	276,000
118-K-1_P2_Deep_3	non-Rad	Mercury	7439-97-6	ug/kg	9.2
118-K-1_P2_Deep_3	non-Rad	Molybdenum	7439-98-7	ug/kg	338
118-K-1_P2_Deep_3	non-Rad	Nickel	7440-02-0	ug/kg	7,219
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12
118-K-1_P2_Deep_3	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,075
118-K-1_P2_Deep_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.82
118-K-1_P2_Deep_3	Rad	Uranium-238	7440-61-1	pCi/g	0.70
118-K-1_P2_Deep_3	non-Rad	Vanadium	7440-62-2	ug/kg	67,900
118-K-1_P2_Deep_3	non-Rad	Zinc	7440-66-6	ug/kg	41,900
118-K-1_P2_Deep_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.12E+06
118-K-1_P2_Deep_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,110

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_4	non-Rad	Barium	7440-39-3	ug/kg	49,958
118-K-1_P2_Deep_4	non-Rad	Beryllium	7440-41-7	ug/kg	246
118-K-1_P2_Deep_4	non-Rad	Boron	7440-42-8	ug/kg	1,010
118-K-1_P2_Deep_4	non-Rad	Cadmium	7440-43-9	ug/kg	58
118-K-1_P2_Deep_4	Rad	Cesium-137	10045-97-3	pCi/g	0.50
118-K-1_P2_Deep_4	non-Rad	Chromium	7440-47-3	ug/kg	6,990
118-K-1_P2_Deep_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,410
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17
118-K-1_P2_Deep_4	non-Rad	Copper	7440-50-8	ug/kg	13,100
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3
118-K-1_P2_Deep_4	non-Rad	Iron	7439-89-6	ug/kg	2.16E+07
118-K-1_P2_Deep_4	non-Rad	Lead	7439-92-1	ug/kg	3,380
118-K-1_P2_Deep_4	non-Rad	Manganese	7439-96-5	ug/kg	285,000
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100
118-K-1_P2_Deep_4	non-Rad	Nickel	7440-02-0	ug/kg	8,510
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68
118-K-1_P2_Deep_4	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,122
118-K-1_P2_Deep_4	Rad	Tritium	10028-17-8	pCi/g	5.2
118-K-1_P2_Deep_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.67
118-K-1_P2_Deep_4	Rad	Uranium-235	15117-96-1	pCi/g	0.041
118-K-1_P2_Deep_4	Rad	Uranium-238	7440-61-1	pCi/g	0.71
118-K-1_P2_Deep_4	non-Rad	Vanadium	7440-62-2	ug/kg	62,899
118-K-1_P2_Deep_4	non-Rad	Zinc	7440-66-6	ug/kg	40,545
118-K-1_P2_Deep_5	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06
118-K-1_P2_Deep_5	non-Rad	Antimony	7440-36-0	ug/kg	237
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4
118-K-1_P2_Deep_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,850
118-K-1_P2_Deep_5	non-Rad	Barium	7440-39-3	ug/kg	72,194
118-K-1_P2_Deep_5	non-Rad	Beryllium	7440-41-7	ug/kg	327
118-K-1_P2_Deep_5	non-Rad	Boron	7440-42-8	ug/kg	794
118-K-1_P2_Deep_5	non-Rad	Cadmium	7440-43-9	ug/kg	106
118-K-1_P2_Deep_5	Rad	Carbon-14	14762-75-5	pCi/g	2.7
118-K-1_P2_Deep_5	Rad	Cesium-137	10045-97-3	pCi/g	0.092
118-K-1_P2_Deep_5	non-Rad	Chromium	7440-47-3	ug/kg	4,480
118-K-1_P2_Deep_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,990
118-K-1_P2_Deep_5	non-Rad	Copper	7440-50-8	ug/kg	17,100
118-K-1_P2_Deep_5	non-Rad	Iron	7439-89-6	ug/kg	3.40E+07
118-K-1_P2_Deep_5	non-Rad	Lead	7439-92-1	ug/kg	2,370
118-K-1_P2_Deep_5	non-Rad	Manganese	7439-96-5	ug/kg	413,000
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_5	non-Rad	Nickel	7440-02-0	ug/kg	7,096
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,110
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	53,100
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842
118-K-1_P2_Deep_5	non-Rad	Zinc	7440-66-6	ug/kg	55,271
118-K-1_P2_Deep_6	non-Rad	Aluminum	7429-90-5	ug/kg	6.25E+06
118-K-1_P2_Deep_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,120
118-K-1_P2_Deep_6	non-Rad	Barium	7440-39-3	ug/kg	67,400
118-K-1_P2_Deep_6	non-Rad	Beryllium	7440-41-7	ug/kg	311
118-K-1_P2_Deep_6	non-Rad	Boron	7440-42-8	ug/kg	667
118-K-1_P2_Deep_6	non-Rad	Cadmium	7440-43-9	ug/kg	118
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7
118-K-1_P2_Deep_6	Rad	Cesium-137	10045-97-3	pCi/g	0.084
118-K-1_P2_Deep_6	non-Rad	Chromium	7440-47-3	ug/kg	5,380
118-K-1_P2_Deep_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,200
118-K-1_P2_Deep_6	non-Rad	Copper	7440-50-8	ug/kg	17,780
118-K-1_P2_Deep_6	non-Rad	Iron	7439-89-6	ug/kg	3.04E+07
118-K-1_P2_Deep_6	non-Rad	Lead	7439-92-1	ug/kg	3,266
118-K-1_P2_Deep_6	non-Rad	Manganese	7439-96-5	ug/kg	391,000
118-K-1_P2_Deep_6	non-Rad	Molybdenum	7439-98-7	ug/kg	327
118-K-1_P2_Deep_6	non-Rad	Nickel	7440-02-0	ug/kg	7,810
118-K-1_P2_Deep_6	non-Rad	Vanadium	7440-62-2	ug/kg	82,600
118-K-1_P2_Deep_6	non-Rad	Zinc	7440-66-6	ug/kg	48,600
118-K-1_P2_Deep_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.24E+06
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8
118-K-1_P2_Deep_7	non-Rad	Arsenic	7440-38-2	ug/kg	1,820
118-K-1_P2_Deep_7	non-Rad	Barium	7440-39-3	ug/kg	53,701
118-K-1_P2_Deep_7	non-Rad	Beryllium	7440-41-7	ug/kg	248
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10
118-K-1_P2_Deep_7	non-Rad	Chromium	7440-47-3	ug/kg	8,465
118-K-1_P2_Deep_7	non-Rad	Cobalt	7440-48-4	ug/kg	10,401
118-K-1_P2_Deep_7	non-Rad	Copper	7440-50-8	ug/kg	17,328
118-K-1_P2_Deep_7	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07
118-K-1_P2_Deep_7	non-Rad	Lead	7439-92-1	ug/kg	3,270
118-K-1_P2_Deep_7	non-Rad	Manganese	7439-96-5	ug/kg	360,000
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18
118-K-1_P2_Deep_7	non-Rad	Nickel	7440-02-0	ug/kg	8,156
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_7	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,216
118-K-1_P2_Deep_7	Rad	Tritium	10028-17-8	pCi/g	7.5
118-K-1_P2_Deep_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.46
118-K-1_P2_Deep_7	Rad	Uranium-238	7440-61-1	pCi/g	0.74
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461
118-K-1_P2_Deep_7	non-Rad	Zinc	7440-66-6	ug/kg	55,780
118-K-1_P2_Deep_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.81E+06
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28
118-K-1_P2_Deep_8	non-Rad	Arsenic	7440-38-2	ug/kg	2,093
118-K-1_P2_Deep_8	non-Rad	Barium	7440-39-3	ug/kg	67,500
118-K-1_P2_Deep_8	non-Rad	Beryllium	7440-41-7	ug/kg	334
118-K-1_P2_Deep_8	non-Rad	Boron	7440-42-8	ug/kg	693
118-K-1_P2_Deep_8	non-Rad	Cadmium	7440-43-9	ug/kg	103
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84
118-K-1_P2_Deep_8	Rad	Cesium-137	10045-97-3	pCi/g	0.29
118-K-1_P2_Deep_8	non-Rad	Chromium	7440-47-3	ug/kg	4,802
118-K-1_P2_Deep_8	non-Rad	Cobalt	7440-48-4	ug/kg	11,230
118-K-1_P2_Deep_8	non-Rad	Copper	7440-50-8	ug/kg	18,500
118-K-1_P2_Deep_8	non-Rad	Iron	7439-89-6	ug/kg	3.60E+07
118-K-1_P2_Deep_8	non-Rad	Lead	7439-92-1	ug/kg	3,744
118-K-1_P2_Deep_8	non-Rad	Manganese	7439-96-5	ug/kg	515,801
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495
118-K-1_P2_Deep_8	non-Rad	Nickel	7440-02-0	ug/kg	8,390
118-K-1_P2_Deep_8	non-Rad	Selenium	7782-49-2	ug/kg	268
118-K-1_P2_Deep_8	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,244
118-K-1_P2_Deep_8	Rad	Tritium	10028-17-8	pCi/g	5.8
118-K-1_P2_Deep_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.73
118-K-1_P2_Deep_8	Rad	Uranium-238	7440-61-1	pCi/g	0.75
118-K-1_P2_Deep_8	non-Rad	Vanadium	7440-62-2	ug/kg	83,544
118-K-1_P2_Deep_8	non-Rad	Zinc	7440-66-6	ug/kg	52,500
118-K-1_P2_Deep_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	4.30E+06
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99
118-K-1_P2_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	3,040
118-K-1_P2_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,910
118-K-1_P2_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	41,900
118-K-1_P2_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	183
118-K-1_P2_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,260
118-K-1_P2_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	79
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11
118-K-1_P2_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	6,030
118-K-1_P2_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	5,300

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	13,600
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3
118-K-1_P2_Deep_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	1.77E+07
118-K-1_P2_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	8,410
118-K-1_P2_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	232,000
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517
118-K-1_P2_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,550
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29
118-K-1_P2_Deep_Focused_1	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,706
118-K-1_P2_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.54
118-K-1_P2_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57
118-K-1_P2_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	44,900
118-K-1_P2_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	37,200
118-K-1_P2_Deep_Focused_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.61E+06
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2
118-K-1_P2_Deep_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,130
118-K-1_P2_Deep_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	56,100
118-K-1_P2_Deep_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	228
118-K-1_P2_Deep_Focused_2	non-Rad	Boron	7440-42-8	ug/kg	791
118-K-1_P2_Deep_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	69
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4
118-K-1_P2_Deep_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	13,000
118-K-1_P2_Deep_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,420
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40
118-K-1_P2_Deep_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	13,000
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9
118-K-1_P2_Deep_Focused_2	non-Rad	Iron	7439-89-6	ug/kg	2.08E+07
118-K-1_P2_Deep_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,870
118-K-1_P2_Deep_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	256,000
118-K-1_P2_Deep_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	258
118-K-1_P2_Deep_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	11,700
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15
118-K-1_P2_Deep_Focused_2	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,823

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1
118-K-1_P2_Deep_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.65
118-K-1_P2_Deep_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.041
118-K-1_P2_Deep_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.61
118-K-1_P2_Deep_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	67,300
118-K-1_P2_Deep_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	42,300
118-K-1_P2_Deep_Focused_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.45E+06
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9
118-K-1_P2_Deep_Focused_7	non-Rad	Arsenic	7440-38-2	ug/kg	2,080
118-K-1_P2_Deep_Focused_7	non-Rad	Barium	7440-39-3	ug/kg	86,500
118-K-1_P2_Deep_Focused_7	non-Rad	Beryllium	7440-41-7	ug/kg	330
118-K-1_P2_Deep_Focused_7	non-Rad	Boron	7440-42-8	ug/kg	523
118-K-1_P2_Deep_Focused_7	non-Rad	Cadmium	7440-43-9	ug/kg	78
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36
118-K-1_P2_Deep_Focused_7	non-Rad	Chromium	7440-47-3	ug/kg	6,900
118-K-1_P2_Deep_Focused_7	non-Rad	Cobalt	7440-48-4	ug/kg	6,460
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20
118-K-1_P2_Deep_Focused_7	non-Rad	Copper	7440-50-8	ug/kg	17,600
118-K-1_P2_Deep_Focused_7	non-Rad	Iron	7439-89-6	ug/kg	2.98E+07
118-K-1_P2_Deep_Focused_7	non-Rad	Lead	7439-92-1	ug/kg	3,290
118-K-1_P2_Deep_Focused_7	non-Rad	Manganese	7439-96-5	ug/kg	345,000
118-K-1_P2_Deep_Focused_7	non-Rad	Molybdenum	7439-98-7	ug/kg	394
118-K-1_P2_Deep_Focused_7	non-Rad	Nickel	7440-02-0	ug/kg	9,130
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12
118-K-1_P2_Deep_Focused_7	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,837
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30
118-K-1_P2_Deep_Focused_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.42
118-K-1_P2_Deep_Focused_7	Rad	Uranium-238	7440-61-1	pCi/g	0.62
118-K-1_P2_Deep_Focused_7	non-Rad	Vanadium	7440-62-2	ug/kg	70,500
118-K-1_P2_Deep_Focused_7	non-Rad	Zinc	7440-66-6	ug/kg	47,300
118-K-1_P2_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	5.76E+06
118-K-1_P2_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,420
118-K-1_P2_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	55,474
118-K-1_P2_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	251
118-K-1_P2_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,458
118-K-1_P2_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	77
118-K-1_P2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	4.5
118-K-1_P2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.073
118-K-1_P2_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,290

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,406
118-K-1_P2_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	13,800
118-K-1_P2_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.07E+07
118-K-1_P2_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	3,360
118-K-1_P2_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	295,000
118-K-1_P2_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	423
118-K-1_P2_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	7,140
118-K-1_P2_Shallow_1	Rad	Tritium	10028-17-8	pCi/g	6.5
118-K-1_P2_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,364
118-K-1_P2_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,300
118-K-1_P2_Shallow_10	non-Rad	Aluminum	7429-90-5	ug/kg	9.80E+06
118-K-1_P2_Shallow_10	non-Rad	Arsenic	7440-38-2	ug/kg	3,370
118-K-1_P2_Shallow_10	non-Rad	Barium	7440-39-3	ug/kg	76,559
118-K-1_P2_Shallow_10	non-Rad	Beryllium	7440-41-7	ug/kg	401
118-K-1_P2_Shallow_10	non-Rad	Boron	7440-42-8	ug/kg	1,659
118-K-1_P2_Shallow_10	non-Rad	Cadmium	7440-43-9	ug/kg	121
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88
118-K-1_P2_Shallow_10	Rad	Cesium-137	10045-97-3	pCi/g	0.11
118-K-1_P2_Shallow_10	non-Rad	Chromium	7440-47-3	ug/kg	11,600
118-K-1_P2_Shallow_10	non-Rad	Cobalt	7440-48-4	ug/kg	9,600
118-K-1_P2_Shallow_10	non-Rad	Copper	7440-50-8	ug/kg	22,649
118-K-1_P2_Shallow_10	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07
118-K-1_P2_Shallow_10	non-Rad	Lead	7439-92-1	ug/kg	4,510
118-K-1_P2_Shallow_10	non-Rad	Manganese	7439-96-5	ug/kg	452,510
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590
118-K-1_P2_Shallow_10	non-Rad	Nickel	7440-02-0	ug/kg	10,800
118-K-1_P2_Shallow_10	non-Rad	Nitrate	14797-55-8	ug/kg	44,542
118-K-1_P2_Shallow_10	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,171
118-K-1_P2_Shallow_10	Rad	Uranium-233/234	U-233/234	pCi/g	0.72
118-K-1_P2_Shallow_10	Rad	Uranium-238	7440-61-1	pCi/g	0.73
118-K-1_P2_Shallow_10	non-Rad	Vanadium	7440-62-2	ug/kg	83,071
118-K-1_P2_Shallow_10	non-Rad	Zinc	7440-66-6	ug/kg	56,346
118-K-1_P2_Shallow_11A	non-Rad	Aluminum	7429-90-5	ug/kg	7.97E+06
118-K-1_P2_Shallow_11A	non-Rad	Arsenic	7440-38-2	ug/kg	2,973
118-K-1_P2_Shallow_11A	non-Rad	Barium	7440-39-3	ug/kg	75,402
118-K-1_P2_Shallow_11A	non-Rad	Beryllium	7440-41-7	ug/kg	311
118-K-1_P2_Shallow_11A	non-Rad	Boron	7440-42-8	ug/kg	1,847
118-K-1_P2_Shallow_11A	non-Rad	Cadmium	7440-43-9	ug/kg	124
118-K-1_P2_Shallow_11A	Rad	Cesium-137	10045-97-3	pCi/g	0.14
118-K-1_P2_Shallow_11A	non-Rad	Chromium	7440-47-3	ug/kg	9,103
118-K-1_P2_Shallow_11A	non-Rad	Cobalt	7440-48-4	ug/kg	8,040
118-K-1_P2_Shallow_11A	non-Rad	Copper	7440-50-8	ug/kg	18,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_11A	non-Rad	Iron	7439-89-6	ug/kg	2.64E+07
118-K-1_P2_Shallow_11A	non-Rad	Lead	7439-92-1	ug/kg	5,321
118-K-1_P2_Shallow_11A	non-Rad	Manganese	7439-96-5	ug/kg	351,000
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650
118-K-1_P2_Shallow_11A	non-Rad	Nickel	7440-02-0	ug/kg	10,657
118-K-1_P2_Shallow_11A	non-Rad	Nitrate	14797-55-8	ug/kg	121,000
118-K-1_P2_Shallow_11A	non-Rad	Vanadium	7440-62-2	ug/kg	71,900
118-K-1_P2_Shallow_11A	non-Rad	Zinc	7440-66-6	ug/kg	56,000
118-K-1_P2_Shallow_11B	non-Rad	Aluminum	7429-90-5	ug/kg	1.06E+07
118-K-1_P2_Shallow_11B	non-Rad	Arsenic	7440-38-2	ug/kg	3,228
118-K-1_P2_Shallow_11B	non-Rad	Barium	7440-39-3	ug/kg	87,080
118-K-1_P2_Shallow_11B	non-Rad	Beryllium	7440-41-7	ug/kg	383
118-K-1_P2_Shallow_11B	non-Rad	Boron	7440-42-8	ug/kg	2,290
118-K-1_P2_Shallow_11B	non-Rad	Cadmium	7440-43-9	ug/kg	136
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88
118-K-1_P2_Shallow_11B	Rad	Cesium-137	10045-97-3	pCi/g	0.099
118-K-1_P2_Shallow_11B	non-Rad	Chromium	7440-47-3	ug/kg	12,715
118-K-1_P2_Shallow_11B	non-Rad	Cobalt	7440-48-4	ug/kg	7,860
118-K-1_P2_Shallow_11B	non-Rad	Copper	7440-50-8	ug/kg	17,700
118-K-1_P2_Shallow_11B	non-Rad	Iron	7439-89-6	ug/kg	2.54E+07
118-K-1_P2_Shallow_11B	non-Rad	Lead	7439-92-1	ug/kg	5,250
118-K-1_P2_Shallow_11B	non-Rad	Manganese	7439-96-5	ug/kg	404,000
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678
118-K-1_P2_Shallow_11B	non-Rad	Nickel	7440-02-0	ug/kg	12,000
118-K-1_P2_Shallow_11B	non-Rad	Nitrate	14797-55-8	ug/kg	390,793
118-K-1_P2_Shallow_11B	non-Rad	Nitrite	14797-65-0	ug/kg	1,000
118-K-1_P2_Shallow_11B	non-Rad	Vanadium	7440-62-2	ug/kg	69,400
118-K-1_P2_Shallow_11B	non-Rad	Zinc	7440-66-6	ug/kg	57,921
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07
118-K-1_P2_Shallow_11C	non-Rad	Arsenic	7440-38-2	ug/kg	3,653
118-K-1_P2_Shallow_11C	non-Rad	Barium	7440-39-3	ug/kg	96,400
118-K-1_P2_Shallow_11C	non-Rad	Beryllium	7440-41-7	ug/kg	433
118-K-1_P2_Shallow_11C	non-Rad	Boron	7440-42-8	ug/kg	2,414
118-K-1_P2_Shallow_11C	non-Rad	Cadmium	7440-43-9	ug/kg	146
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87
118-K-1_P2_Shallow_11C	Rad	Cesium-137	10045-97-3	pCi/g	0.095
118-K-1_P2_Shallow_11C	non-Rad	Chromium	7440-47-3	ug/kg	14,900
118-K-1_P2_Shallow_11C	non-Rad	Cobalt	7440-48-4	ug/kg	7,710
118-K-1_P2_Shallow_11C	non-Rad	Copper	7440-50-8	ug/kg	19,453
118-K-1_P2_Shallow_11C	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07
118-K-1_P2_Shallow_11C	non-Rad	Lead	7439-92-1	ug/kg	5,085
118-K-1_P2_Shallow_11C	non-Rad	Manganese	7439-96-5	ug/kg	441,000

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517
118-K-1_P2_Shallow_11C	non-Rad	Nickel	7440-02-0	ug/kg	14,400
118-K-1_P2_Shallow_11C	non-Rad	Nitrate	14797-55-8	ug/kg	169,367
118-K-1_P2_Shallow_11C	non-Rad	Vanadium	7440-62-2	ug/kg	65,680
118-K-1_P2_Shallow_11C	non-Rad	Zinc	7440-66-6	ug/kg	49,600
118-K-1_P2_Shallow_11D	non-Rad	Aluminum	7429-90-5	ug/kg	1.17E+07
118-K-1_P2_Shallow_11D	non-Rad	Arsenic	7440-38-2	ug/kg	3,120
118-K-1_P2_Shallow_11D	non-Rad	Barium	7440-39-3	ug/kg	89,100
118-K-1_P2_Shallow_11D	non-Rad	Beryllium	7440-41-7	ug/kg	395
118-K-1_P2_Shallow_11D	non-Rad	Boron	7440-42-8	ug/kg	2,320
118-K-1_P2_Shallow_11D	non-Rad	Cadmium	7440-43-9	ug/kg	162
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2
118-K-1_P2_Shallow_11D	Rad	Cesium-137	10045-97-3	pCi/g	0.12
118-K-1_P2_Shallow_11D	non-Rad	Chromium	7440-47-3	ug/kg	12,600
118-K-1_P2_Shallow_11D	non-Rad	Cobalt	7440-48-4	ug/kg	7,275
118-K-1_P2_Shallow_11D	non-Rad	Copper	7440-50-8	ug/kg	14,940
118-K-1_P2_Shallow_11D	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07
118-K-1_P2_Shallow_11D	non-Rad	Lead	7439-92-1	ug/kg	5,756
118-K-1_P2_Shallow_11D	non-Rad	Manganese	7439-96-5	ug/kg	409,000
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563
118-K-1_P2_Shallow_11D	non-Rad	Nickel	7440-02-0	ug/kg	11,600
118-K-1_P2_Shallow_11D	non-Rad	Nitrate	14797-55-8	ug/kg	148,000
118-K-1_P2_Shallow_11D	non-Rad	Vanadium	7440-62-2	ug/kg	62,900
118-K-1_P2_Shallow_11D	non-Rad	Zinc	7440-66-6	ug/kg	49,719
118-K-1_P2_Shallow_11E	non-Rad	Aluminum	7429-90-5	ug/kg	1.12E+07
118-K-1_P2_Shallow_11E	non-Rad	Arsenic	7440-38-2	ug/kg	3,772
118-K-1_P2_Shallow_11E	non-Rad	Barium	7440-39-3	ug/kg	94,900
118-K-1_P2_Shallow_11E	non-Rad	Beryllium	7440-41-7	ug/kg	379
118-K-1_P2_Shallow_11E	non-Rad	Boron	7440-42-8	ug/kg	2,315
118-K-1_P2_Shallow_11E	non-Rad	Cadmium	7440-43-9	ug/kg	146
118-K-1_P2_Shallow_11E	Rad	Carbon-14	14762-75-5	pCi/g	2.1
118-K-1_P2_Shallow_11E	Rad	Cesium-137	10045-97-3	pCi/g	0.14
118-K-1_P2_Shallow_11E	non-Rad	Chromium	7440-47-3	ug/kg	12,619
118-K-1_P2_Shallow_11E	non-Rad	Cobalt	7440-48-4	ug/kg	7,830
118-K-1_P2_Shallow_11E	non-Rad	Copper	7440-50-8	ug/kg	22,325
118-K-1_P2_Shallow_11E	non-Rad	Iron	7439-89-6	ug/kg	2.68E+07
118-K-1_P2_Shallow_11E	non-Rad	Lead	7439-92-1	ug/kg	6,070
118-K-1_P2_Shallow_11E	non-Rad	Manganese	7439-96-5	ug/kg	431,889
118-K-1_P2_Shallow_11E	non-Rad	Mercury	7439-97-6	ug/kg	9.3
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563
118-K-1_P2_Shallow_11E	non-Rad	Nickel	7440-02-0	ug/kg	11,100

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_11E	non-Rad	Nitrate	14797-55-8	ug/kg	56,000
118-K-1_P2_Shallow_11E	non-Rad	Vanadium	7440-62-2	ug/kg	68,495
118-K-1_P2_Shallow_11E	non-Rad	Zinc	7440-66-6	ug/kg	54,300
118-K-1_P2_Shallow_11F	non-Rad	Aluminum	7429-90-5	ug/kg	9.42E+06
118-K-1_P2_Shallow_11F	non-Rad	Arsenic	7440-38-2	ug/kg	3,379
118-K-1_P2_Shallow_11F	non-Rad	Barium	7440-39-3	ug/kg	83,400
118-K-1_P2_Shallow_11F	non-Rad	Beryllium	7440-41-7	ug/kg	316
118-K-1_P2_Shallow_11F	non-Rad	Boron	7440-42-8	ug/kg	2,210
118-K-1_P2_Shallow_11F	non-Rad	Cadmium	7440-43-9	ug/kg	149
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3
118-K-1_P2_Shallow_11F	Rad	Cesium-137	10045-97-3	pCi/g	0.22
118-K-1_P2_Shallow_11F	non-Rad	Chromium	7440-47-3	ug/kg	11,200
118-K-1_P2_Shallow_11F	non-Rad	Cobalt	7440-48-4	ug/kg	8,056
118-K-1_P2_Shallow_11F	non-Rad	Copper	7440-50-8	ug/kg	16,300
118-K-1_P2_Shallow_11F	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07
118-K-1_P2_Shallow_11F	non-Rad	Lead	7439-92-1	ug/kg	5,510
118-K-1_P2_Shallow_11F	non-Rad	Manganese	7439-96-5	ug/kg	374,448
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884
118-K-1_P2_Shallow_11F	non-Rad	Nickel	7440-02-0	ug/kg	11,300
118-K-1_P2_Shallow_11F	non-Rad	Nitrate	14797-55-8	ug/kg	65,100
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7
118-K-1_P2_Shallow_11F	non-Rad	Vanadium	7440-62-2	ug/kg	77,500
118-K-1_P2_Shallow_11F	non-Rad	Zinc	7440-66-6	ug/kg	51,655
118-K-1_P2_Shallow_11G	non-Rad	Aluminum	7429-90-5	ug/kg	7.17E+06
118-K-1_P2_Shallow_11G	non-Rad	Arsenic	7440-38-2	ug/kg	2,690
118-K-1_P2_Shallow_11G	non-Rad	Barium	7440-39-3	ug/kg	60,300
118-K-1_P2_Shallow_11G	non-Rad	Beryllium	7440-41-7	ug/kg	290
118-K-1_P2_Shallow_11G	non-Rad	Boron	7440-42-8	ug/kg	1,340
118-K-1_P2_Shallow_11G	non-Rad	Cadmium	7440-43-9	ug/kg	109
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9
118-K-1_P2_Shallow_11G	Rad	Cesium-137	10045-97-3	pCi/g	0.16
118-K-1_P2_Shallow_11G	non-Rad	Chromium	7440-47-3	ug/kg	8,117
118-K-1_P2_Shallow_11G	non-Rad	Cobalt	7440-48-4	ug/kg	8,360
118-K-1_P2_Shallow_11G	non-Rad	Copper	7440-50-8	ug/kg	16,781
118-K-1_P2_Shallow_11G	non-Rad	Iron	7439-89-6	ug/kg	2.83E+07
118-K-1_P2_Shallow_11G	non-Rad	Lead	7439-92-1	ug/kg	4,750
118-K-1_P2_Shallow_11G	non-Rad	Manganese	7439-96-5	ug/kg	377,844
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582
118-K-1_P2_Shallow_11G	non-Rad	Nickel	7440-02-0	ug/kg	9,760
118-K-1_P2_Shallow_11G	non-Rad	Nitrate	14797-55-8	ug/kg	42,833
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_11G	non-Rad	Zinc	7440-66-6	ug/kg	55,130
118-K-1_P2_Shallow_11H	non-Rad	Aluminum	7429-90-5	ug/kg	6.51E+06
118-K-1_P2_Shallow_11H	non-Rad	Arsenic	7440-38-2	ug/kg	2,774
118-K-1_P2_Shallow_11H	non-Rad	Barium	7440-39-3	ug/kg	55,500
118-K-1_P2_Shallow_11H	non-Rad	Beryllium	7440-41-7	ug/kg	256
118-K-1_P2_Shallow_11H	non-Rad	Boron	7440-42-8	ug/kg	1,258
118-K-1_P2_Shallow_11H	non-Rad	Cadmium	7440-43-9	ug/kg	103
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6
118-K-1_P2_Shallow_11H	Rad	Cesium-137	10045-97-3	pCi/g	0.27
118-K-1_P2_Shallow_11H	non-Rad	Chromium	7440-47-3	ug/kg	6,938
118-K-1_P2_Shallow_11H	non-Rad	Cobalt	7440-48-4	ug/kg	7,810
118-K-1_P2_Shallow_11H	non-Rad	Copper	7440-50-8	ug/kg	16,500
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29
118-K-1_P2_Shallow_11H	non-Rad	Iron	7439-89-6	ug/kg	2.71E+07
118-K-1_P2_Shallow_11H	non-Rad	Lead	7439-92-1	ug/kg	7,929
118-K-1_P2_Shallow_11H	non-Rad	Manganese	7439-96-5	ug/kg	344,000
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488
118-K-1_P2_Shallow_11H	non-Rad	Nickel	7440-02-0	ug/kg	9,390
118-K-1_P2_Shallow_11H	non-Rad	Nitrate	14797-55-8	ug/kg	21,000
118-K-1_P2_Shallow_11H	non-Rad	Vanadium	7440-62-2	ug/kg	82,400
118-K-1_P2_Shallow_11H	non-Rad	Zinc	7440-66-6	ug/kg	55,900
118-K-1_P2_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06
118-K-1_P2_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,870
118-K-1_P2_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	56,878
118-K-1_P2_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	285
118-K-1_P2_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,390
118-K-1_P2_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	84
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0
118-K-1_P2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.097
118-K-1_P2_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,523
118-K-1_P2_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,386
118-K-1_P2_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	13,685
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23
118-K-1_P2_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07
118-K-1_P2_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,338
118-K-1_P2_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	309,188
118-K-1_P2_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	375
118-K-1_P2_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,841
118-K-1_P2_Shallow_2	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,957
118-K-1_P2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.89
118-K-1_P2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.66
118-K-1_P2_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	54,600

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	40,000
118-K-1_P2_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.96E+06
118-K-1_P2_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,875
118-K-1_P2_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	62,560
118-K-1_P2_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	305
118-K-1_P2_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,659
118-K-1_P2_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	85
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2
118-K-1_P2_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,180
118-K-1_P2_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	6,609
118-K-1_P2_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,900
118-K-1_P2_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07
118-K-1_P2_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,339
118-K-1_P2_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	316,000
118-K-1_P2_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	444
118-K-1_P2_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	9,290
118-K-1_P2_Shallow_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.014
118-K-1_P2_Shallow_3	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,249
118-K-1_P2_Shallow_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.66
118-K-1_P2_Shallow_3	Rad	Uranium-238	7440-61-1	pCi/g	0.76
118-K-1_P2_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	57,548
118-K-1_P2_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	43,400
118-K-1_P2_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.79E+06
118-K-1_P2_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	3,167
118-K-1_P2_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	53,000
118-K-1_P2_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	277
118-K-1_P2_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	1,020
118-K-1_P2_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	52
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86
118-K-1_P2_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	6,920
118-K-1_P2_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,321
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27
118-K-1_P2_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	14,100
118-K-1_P2_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07
118-K-1_P2_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	4,059
118-K-1_P2_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	291,000
118-K-1_P2_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	316
118-K-1_P2_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	7,600
118-K-1_P2_Shallow_4	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,792
118-K-1_P2_Shallow_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.64
118-K-1_P2_Shallow_4	Rad	Uranium-235	15117-96-1	pCi/g	0.061
118-K-1_P2_Shallow_4	Rad	Uranium-238	7440-61-1	pCi/g	0.60

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,252
118-K-1_P2_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	41,900
118-K-1_P2_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	8.45E+06
118-K-1_P2_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	2,930
118-K-1_P2_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	73,049
118-K-1_P2_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	346
118-K-1_P2_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,610
118-K-1_P2_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	93
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79
118-K-1_P2_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	0.23
118-K-1_P2_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	7,592
118-K-1_P2_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,489
118-K-1_P2_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,300
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32
118-K-1_P2_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	3.01E+07
118-K-1_P2_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	3,670
118-K-1_P2_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	395,939
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550
118-K-1_P2_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	8,469
118-K-1_P2_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	28,400
118-K-1_P2_Shallow_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,100
118-K-1_P2_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	81,200
118-K-1_P2_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	51,700
118-K-1_P2_Shallow_6	non-Rad	Aluminum	7429-90-5	ug/kg	7.45E+06
118-K-1_P2_Shallow_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,540
118-K-1_P2_Shallow_6	non-Rad	Barium	7440-39-3	ug/kg	114,051
118-K-1_P2_Shallow_6	non-Rad	Beryllium	7440-41-7	ug/kg	345
118-K-1_P2_Shallow_6	non-Rad	Boron	7440-42-8	ug/kg	957
118-K-1_P2_Shallow_6	non-Rad	Cadmium	7440-43-9	ug/kg	91
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81
118-K-1_P2_Shallow_6	Rad	Cesium-137	10045-97-3	pCi/g	0.10
118-K-1_P2_Shallow_6	non-Rad	Chromium	7440-47-3	ug/kg	6,250
118-K-1_P2_Shallow_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,456
118-K-1_P2_Shallow_6	non-Rad	Copper	7440-50-8	ug/kg	18,432
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20
118-K-1_P2_Shallow_6	non-Rad	Iron	7439-89-6	ug/kg	2.95E+07
118-K-1_P2_Shallow_6	non-Rad	Lead	7439-92-1	ug/kg	4,466
118-K-1_P2_Shallow_6	non-Rad	Manganese	7439-96-5	ug/kg	392,000
118-K-1_P2_Shallow_6	non-Rad	Molybdenum	7439-98-7	ug/kg	390
118-K-1_P2_Shallow_6	non-Rad	Nickel	7440-02-0	ug/kg	8,810
118-K-1_P2_Shallow_6	Rad	Tritium	10028-17-8	pCi/g	8.3

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_6	non-Rad	Vanadium	7440-62-2	ug/kg	79,215
118-K-1_P2_Shallow_6	non-Rad	Zinc	7440-66-6	ug/kg	56,100
118-K-1_P2_Shallow_7	non-Rad	Aluminum	7429-90-5	ug/kg	9.46E+06
118-K-1_P2_Shallow_7	non-Rad	Antimony	7440-36-0	ug/kg	16,300
118-K-1_P2_Shallow_7	non-Rad	Arsenic	7440-38-2	ug/kg	3,546
118-K-1_P2_Shallow_7	non-Rad	Barium	7440-39-3	ug/kg	73,740
118-K-1_P2_Shallow_7	non-Rad	Beryllium	7440-41-7	ug/kg	365
118-K-1_P2_Shallow_7	non-Rad	Boron	7440-42-8	ug/kg	1,840
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2
118-K-1_P2_Shallow_7	Rad	Cesium-137	10045-97-3	pCi/g	0.26
118-K-1_P2_Shallow_7	non-Rad	Chromium	7440-47-3	ug/kg	10,300
118-K-1_P2_Shallow_7	non-Rad	Cobalt	7440-48-4	ug/kg	9,670
118-K-1_P2_Shallow_7	non-Rad	Copper	7440-50-8	ug/kg	22,500
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76
118-K-1_P2_Shallow_7	non-Rad	Iron	7439-89-6	ug/kg	2.91E+07
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142
118-K-1_P2_Shallow_7	non-Rad	Manganese	7439-96-5	ug/kg	437,260
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650
118-K-1_P2_Shallow_7	non-Rad	Nickel	7440-02-0	ug/kg	11,900
118-K-1_P2_Shallow_7	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,186
118-K-1_P2_Shallow_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.69
118-K-1_P2_Shallow_7	Rad	Uranium-238	7440-61-1	pCi/g	0.73
118-K-1_P2_Shallow_7	non-Rad	Vanadium	7440-62-2	ug/kg	79,100
118-K-1_P2_Shallow_7	non-Rad	Zinc	7440-66-6	ug/kg	77,182
118-K-1_P2_Shallow_8	non-Rad	Aluminum	7429-90-5	ug/kg	7.63E+06
118-K-1_P2_Shallow_8	non-Rad	Arsenic	7440-38-2	ug/kg	3,422
118-K-1_P2_Shallow_8	non-Rad	Barium	7440-39-3	ug/kg	78,248
118-K-1_P2_Shallow_8	non-Rad	Beryllium	7440-41-7	ug/kg	377
118-K-1_P2_Shallow_8	non-Rad	Boron	7440-42-8	ug/kg	1,020
118-K-1_P2_Shallow_8	non-Rad	Cadmium	7440-43-9	ug/kg	116
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3
118-K-1_P2_Shallow_8	Rad	Cesium-137	10045-97-3	pCi/g	0.15
118-K-1_P2_Shallow_8	non-Rad	Chromium	7440-47-3	ug/kg	8,115
118-K-1_P2_Shallow_8	non-Rad	Cobalt	7440-48-4	ug/kg	13,365
118-K-1_P2_Shallow_8	non-Rad	Copper	7440-50-8	ug/kg	20,000
118-K-1_P2_Shallow_8	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07
118-K-1_P2_Shallow_8	non-Rad	Lead	7439-92-1	ug/kg	6,672
118-K-1_P2_Shallow_8	non-Rad	Manganese	7439-96-5	ug/kg	453,000
118-K-1_P2_Shallow_8	non-Rad	Molybdenum	7439-98-7	ug/kg	435
118-K-1_P2_Shallow_8	non-Rad	Nickel	7440-02-0	ug/kg	11,306
118-K-1_P2_Shallow_8	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,456

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4
118-K-1_P2_Shallow_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.76
118-K-1_P2_Shallow_8	Rad	Uranium-238	7440-61-1	pCi/g	0.49
118-K-1_P2_Shallow_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,026
118-K-1_P2_Shallow_8	non-Rad	Zinc	7440-66-6	ug/kg	58,300
118-K-1_P2_Shallow_9	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07
118-K-1_P2_Shallow_9	non-Rad	Arsenic	7440-38-2	ug/kg	3,100
118-K-1_P2_Shallow_9	non-Rad	Barium	7440-39-3	ug/kg	84,500
118-K-1_P2_Shallow_9	non-Rad	Beryllium	7440-41-7	ug/kg	369
118-K-1_P2_Shallow_9	non-Rad	Boron	7440-42-8	ug/kg	2,630
118-K-1_P2_Shallow_9	non-Rad	Cadmium	7440-43-9	ug/kg	156
118-K-1_P2_Shallow_9	Rad	Cesium-137	10045-97-3	pCi/g	0.12
118-K-1_P2_Shallow_9	non-Rad	Chromium	7440-47-3	ug/kg	13,000
118-K-1_P2_Shallow_9	non-Rad	Cobalt	7440-48-4	ug/kg	8,484
118-K-1_P2_Shallow_9	non-Rad	Copper	7440-50-8	ug/kg	17,100
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053
118-K-1_P2_Shallow_9	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07
118-K-1_P2_Shallow_9	non-Rad	Lead	7439-92-1	ug/kg	5,349
118-K-1_P2_Shallow_9	non-Rad	Manganese	7439-96-5	ug/kg	400,862
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641
118-K-1_P2_Shallow_9	non-Rad	Nickel	7440-02-0	ug/kg	11,733
118-K-1_P2_Shallow_9	non-Rad	Nitrate	14797-55-8	ug/kg	231,145
118-K-1_P2_Shallow_9	non-Rad	Nitrite	14797-65-0	ug/kg	1,000
118-K-1_P2_Shallow_9	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,721
118-K-1_P2_Shallow_9	Rad	Uranium-233/234	U-233/234	pCi/g	0.61
118-K-1_P2_Shallow_9	Rad	Uranium-238	7440-61-1	pCi/g	0.91
118-K-1_P2_Shallow_9	non-Rad	Vanadium	7440-62-2	ug/kg	69,800
118-K-1_P2_Shallow_9	non-Rad	Zinc	7440-66-6	ug/kg	55,577
118-K-1_P2_Shallow_Focused_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.04E+06
118-K-1_P2_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	369
118-K-1_P2_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	3,980
118-K-1_P2_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	80,500
118-K-1_P2_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	318
118-K-1_P2_Shallow_Focused_3	non-Rad	Boron	7440-42-8	ug/kg	853
118-K-1_P2_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	116
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7
118-K-1_P2_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	17,400
118-K-1_P2_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,820
118-K-1_P2_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,400
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07
118-K-1_P2_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	2,690

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	464,000
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500
118-K-1_P2_Shallow_Focused_3	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,313
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.80
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.78
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100
118-K-1_P2_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	53,000
118-K-1_P2_Shallow_Focused_4	non-Rad	Aluminum	7429-90-5	ug/kg	4.41E+06
118-K-1_P2_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,560
118-K-1_P2_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	52,000
118-K-1_P2_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	285
118-K-1_P2_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	73
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1
118-K-1_P2_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,390
118-K-1_P2_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,690
118-K-1_P2_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300
118-K-1_P2_Shallow_Focused_4	non-Rad	Iron	7439-89-6	ug/kg	2.74E+07
118-K-1_P2_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,020
118-K-1_P2_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	316,000
118-K-1_P2_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	261
118-K-1_P2_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,640
118-K-1_P2_Shallow_Focused_4	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,110
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.33
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.37
118-K-1_P2_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,000
118-K-1_P2_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	44,300
118-K-1_P2_Shallow_Focused_5	non-Rad	Aluminum	7429-90-5	ug/kg	5.27E+06
118-K-1_P2_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,600
118-K-1_P2_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	55,700
118-K-1_P2_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	196
118-K-1_P2_Shallow_Focused_5	non-Rad	Boron	7440-42-8	ug/kg	483
118-K-1_P2_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	66
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3
118-K-1_P2_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,900
118-K-1_P2_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,390
118-K-1_P2_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	14,200
118-K-1_P2_Shallow_Focused_5	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07
118-K-1_P2_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	1,630
118-K-1_P2_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	293,000
118-K-1_P2_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	328
118-K-1_P2_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	5,780

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_Focused_5	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,265
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-233/234	U-233/234	pCi/g	0.37
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-235	15117-96-1	pCi/g	0.026
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-238	7440-61-1	pCi/g	0.42
118-K-1_P2_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	70,300
118-K-1_P2_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	42,300
118-K-1_P2_Shallow_Focused_6	non-Rad	Aluminum	7429-90-5	ug/kg	9.10E+06
118-K-1_P2_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	3,740
118-K-1_P2_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	86,200
118-K-1_P2_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	302
118-K-1_P2_Shallow_Focused_6	non-Rad	Boron	7440-42-8	ug/kg	1,390
118-K-1_P2_Shallow_Focused_6	Rad	Cesium-137	10045-97-3	pCi/g	0.63
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300
118-K-1_P2_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	6,710
118-K-1_P2_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	17,200
118-K-1_P2_Shallow_Focused_6	non-Rad	Iron	7439-89-6	ug/kg	1.80E+07
118-K-1_P2_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	4,810
118-K-1_P2_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	315,000
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400
118-K-1_P2_Shallow_Focused_6	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	2,435
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-233/234	U-233/234	pCi/g	0.55
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-238	7440-61-1	pCi/g	0.82
118-K-1_P2_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	43,900
118-K-1_P2_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	40,300
118-K-1_P2_Shallow_Focused_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.68E+06
118-K-1_P2_Shallow_Focused_8	non-Rad	Arsenic	7440-38-2	ug/kg	4,160
118-K-1_P2_Shallow_Focused_8	non-Rad	Barium	7440-39-3	ug/kg	67,700
118-K-1_P2_Shallow_Focused_8	non-Rad	Beryllium	7440-41-7	ug/kg	280
118-K-1_P2_Shallow_Focused_8	non-Rad	Boron	7440-42-8	ug/kg	796
118-K-1_P2_Shallow_Focused_8	non-Rad	Cadmium	7440-43-9	ug/kg	102
118-K-1_P2_Shallow_Focused_8	non-Rad	Chromium	7440-47-3	ug/kg	7,040
118-K-1_P2_Shallow_Focused_8	non-Rad	Cobalt	7440-48-4	ug/kg	7,220
118-K-1_P2_Shallow_Focused_8	non-Rad	Copper	7440-50-8	ug/kg	13,400
118-K-1_P2_Shallow_Focused_8	non-Rad	Iron	7439-89-6	ug/kg	2.73E+07
118-K-1_P2_Shallow_Focused_8	non-Rad	Lead	7439-92-1	ug/kg	3,480
118-K-1_P2_Shallow_Focused_8	non-Rad	Manganese	7439-96-5	ug/kg	369,000
118-K-1_P2_Shallow_Focused_8	non-Rad	Molybdenum	7439-98-7	ug/kg	428
118-K-1_P2_Shallow_Focused_8	non-Rad	Nickel	7440-02-0	ug/kg	8,980
118-K-1_P2_Shallow_Focused_8	non-Rad	Total_U_Isotopes	Total_U_Isotopes	ug/kg	1,200
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.35
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-238	7440-61-1	pCi/g	0.40

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
118-K-1_P2_Shallow_Focused_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,100
118-K-1_P2_Shallow_Focused_8	non-Rad	Zinc	7440-66-6	ug/kg	48,300
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Arsenic	7440-38-2	ug/kg	2,804
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Barium	7440-39-3	ug/kg	68,765
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Beryllium	7440-41-7	ug/kg	373
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Boron	7440-42-8	ug/kg	2,647
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Cadmium	7440-43-9	ug/kg	107
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Chromium	7440-47-3	ug/kg	8,241
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Cobalt	7440-48-4	ug/kg	11,553
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Copper	7440-50-8	ug/kg	18,300
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Lead	7439-92-1	ug/kg	5,257
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Manganese	7439-96-5	ug/kg	388,798
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Nickel	7440-02-0	ug/kg	10,964
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Nitrate	14797-55-8	ug/kg	5,000
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Selenium	7782-49-2	ug/kg	1,021
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Strontium	7440-24-6	ug/kg	31,324
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Tin	7440-31-5	ug/kg	556
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Uranium	7440-61-1	ug/kg	516
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Vanadium	7440-62-2	ug/kg	82,072
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_7	non-Rad	Zinc	7440-66-6	ug/kg	51,282
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Antimony	7440-36-0	ug/kg	611
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Arsenic	7440-38-2	ug/kg	4,053
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Barium	7440-39-3	ug/kg	73,879
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Beryllium	7440-41-7	ug/kg	381
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Boron	7440-42-8	ug/kg	2,047
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Cadmium	7440-43-9	ug/kg	102
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Chromium	7440-47-3	ug/kg	10,267
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Cobalt	7440-48-4	ug/kg	11,430
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Copper	7440-50-8	ug/kg	19,213
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Lead	7439-92-1	ug/kg	6,987
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Manganese	7439-96-5	ug/kg	452,060
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Mercury	7439-97-6	ug/kg	89
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Nickel	7440-02-0	ug/kg	12,571
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Nitrate	14797-55-8	ug/kg	24,999
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Selenium	7782-49-2	ug/kg	734
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Strontium	7440-24-6	ug/kg	37,373
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Tin	7440-31-5	ug/kg	587
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Uranium	7440-61-1	ug/kg	599
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Vanadium	7440-62-2	ug/kg	76,175
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Overburden_9	non-Rad	Zinc	7440-66-6	ug/kg	54,577
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,570
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,251

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	449
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,273
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,530
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,072
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,296
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Fluoride	16984-48-8	ug/kg	1,910
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,937
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,189
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	10,319
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	561
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,017
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	55,448
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	130
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	101,000
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	420
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	87
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	6,400
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,600
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	3,200
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	316,000
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	8,700
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	82
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	850
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	62,600
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670
128-K-1_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700
128-K-1_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	71,500
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870
128-K-1_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	350
128-K-1_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,500
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800
128-K-1_Shallow_Focused	non-Rad	Total petroleum hydrocarbons	TPH	ug/kg	14,400
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10
128-K-2_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.07E+06
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11
128-K-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	500
128-K-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,263
128-K-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	68,960
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4
128-K-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	519
128-K-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,928
128-K-2_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	153
128-K-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,922
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14
128-K-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,021
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18
128-K-2_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07
128-K-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	9,642
128-K-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	324,704
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
128-K-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	250
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16
128-K-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,030
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	3,425
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	4,568
128-K-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,084
128-K-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,542
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10
128-K-2_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.26E+06
128-K-2_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	410
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50
128-K-2_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,300
128-K-2_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,000
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8
128-K-2_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	540
128-K-2_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	3,300
128-K-2_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	190
128-K-2_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	14,600
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12
128-K-2_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,400
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29
128-K-2_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300
128-K-2_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	332,000
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100
128-K-2_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300
128-K-2_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,300
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	560,000
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	1.20E+06
128-K-2_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	45,300
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040
132-KE-1_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,770

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
132-KE-1_Shallow	non-Rad	Barium	7440-39-3	ug/kg	60,800
132-KE-1_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	301
132-KE-1_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15
132-KE-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.42
132-KE-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	6,770
132-KE-1_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,270
132-KE-1_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,500
132-KE-1_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,340
132-KE-1_Shallow	non-Rad	Lithium	7439-93-2	ug/kg	6,970
132-KE-1_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	308,000
132-KE-1_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	397
132-KE-1_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,340
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041
132-KE-1_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	267
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494
132-KE-1_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	467
132-KE-1_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.15
132-KE-1_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015
132-KE-1_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.14
132-KE-1_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	56,900
132-KE-1_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,800
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12
1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,490
1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	78,400
1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	384
1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,630
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200
1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,300
1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,800
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100
1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550
1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	18,800
1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,590
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549
1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	668
1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	74,600

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900
600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	9.29E+06
600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	520
600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	10,358
600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,216
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67
600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	653
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103
600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,759
600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	105
600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,813
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46
600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,224
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238
600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.30E+07
600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,752
600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	348,791
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22
600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	274
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	22,077
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	31,433
600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,344
600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,782
600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.83E+06
600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	450
600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,800
600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	68,500
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210
600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	620
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120
600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000
600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	160
600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,600
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90
600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,900
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240

Table 4-6. Exposure Point Concentrations for Each Waste Site Decision Unit in the 100-KR-1 and 100-KR-2 Source Ous

Waste Site Decision Unit	Analyte Group	Analyte	CAS No.	Units	Exposure Point Concentration
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96
600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.43E+07
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700
600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	347,000
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16
600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	290
600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	20,000
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,000
600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	56,200
600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	67,700

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-102_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	595	186,126	15	12,743	No
100-K-102_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,654	20,000[d]	15	20,000	No
100-K-102_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	71,680	5.37E+07	15	3.68E+06	No
100-K-102_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	346	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,027	5.38E+06	15	368,562	No
100-K-102_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	123	18,834	15	1,289	No
100-K-102_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,143	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	11,613	148,901	15	10,194	Yes
100-K-102_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	18,990	8.40E+06	15	575,347	No
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149	6000[c]	15	6,000	No
100-K-102_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,047	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	396,776	2.34E+07	15	1.60E+06	No
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	79,331	15	5,431	No
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593	953,947	15	65,309	No
100-K-102_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,594	6.10E+06	15	417,516	No
100-K-102_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	8,930	1.28E+06	15	87,592	No
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	139,329	15	9,539	No
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455	2.07E+08	15	1.41E+07	No
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689	3.89E+08	15	2.66E+07	No
100-K-102_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	588	2.14E+06	15	146,461	No
100-K-102_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	81,574	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913	2.66E+08	15	1.82E+07	No
100-K-102_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	445	186,126	15	12,743	No
100-K-102_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,032	20,000[d]	15	20,000	No
100-K-102_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	62,641	5.37E+07	15	3.68E+06	No
100-K-102_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,082	5.38E+06	15	368,562	No
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	18,834	15	1,289	No
100-K-102_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,303	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,123	148,901	15	10,194	No
100-K-102_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,143	8.40E+06	15	575,347	No
100-K-102_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	7,073	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	324,038	2.34E+07	15	1.60E+06	No
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	79,331	15	5,431	No
100-K-102_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	446	953,947	15	65,309	No
100-K-102_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,336	6.10E+06	15	417,516	No
100-K-102_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	10,405	1.28E+06	15	87,592	No
100-K-102_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	331	139,329	15	9,539	No
100-K-102_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	31	385,420	15	26,387	No
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284	2.07E+08	15	1.41E+07	No
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478	3.89E+08	15	2.66E+07	No
100-K-102_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	699	2.14E+06	15	146,461	No
100-K-102_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,497	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	42,202	2.66E+08	15	1.82E+07	No
100-K-102_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	463	186,126	1.0	186,126	No
100-K-102_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,510	20,000[d]	1.0	20,000	No
100-K-102_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	99,200	5.37E+07	1.0	5.37E+07	No
100-K-102_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	440	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,500	5.38E+06	1.0	5.38E+06	No
100-K-102_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	183	18,834	1.0	18,834	No
100-K-102_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	13,800	148,901	1.0	148,901	No
100-K-102_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	20,000	8.40E+06	1.0	8.40E+06	No
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610	3.89E+08	1.0	3.89E+08	No
100-K-102_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	9,040	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000	2.34E+07	1.0	2.34E+07	No
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820	953,947	1.0	953,947	No
100-K-102_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,400	6.10E+06	1.0	6.10E+06	No
100-K-102_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	7,700	1.28E+06	1.0	1.28E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-102_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	654	139,329	1.0	139,329	No
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200	2.07E+08	1.0	2.07E+08	No
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716	3.89E+08	1.0	3.89E+08	No
100-K-102_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	676	2.14E+06	1.0	2.14E+06	No
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400	2.66E+08	1.0	2.66E+08	No
100-K-105_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	7.80E+06	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	130	186,126	11	17,551	No
100-K-105_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,500	20,000[d]	11	20,000	No
100-K-105_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	64,000	5.37E+07	11	5.06E+06	No
100-K-105_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	340	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	87	18,834	11	1,776	No
100-K-105_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,900	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,600	148,901	11	14,041	No
100-K-105_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	14,000	8.40E+06	11	792,477	No
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290	6000[c]	11	6,000	No
100-K-105_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.67E+08	11	1.58E+07	Yes
100-K-105_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,600	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	320,000	2.34E+07	11	2.21E+06	No
100-K-105_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	310	953,947	11	89,956	No
100-K-105_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,500	6.10E+06	11	575,082	No
100-K-105_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	5,750	1.28E+06	11	120,648	No
100-K-105_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	500	139,329	11	13,139	No
100-K-105_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	21	385,420	11	36,345	No
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000	2.07E+08	11	1.95E+07	No
100-K-105_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.17	22,536	11	2,125	No
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660	3.89E+08	11	3.67E+07	No
100-K-105_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	360	2.14E+06	11	201,734	No
100-K-105_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	46,000	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	41,000	2.66E+08	11	2.51E+07	No
100-K-105_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.30E+06	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	96	186,126	11	17,551	No
100-K-105_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,200	20,000[d]	11	20,000	No
100-K-105_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	52,000	5.37E+07	11	5.06E+06	No
100-K-105_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	270	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	55	18,834	11	1,776	No
100-K-105_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	7,300	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,200	148,901	11	14,041	No
100-K-105_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	12,000	8.40E+06	11	792,477	No
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6000[c]	11	6,000	No
100-K-105_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.67E+08	11	1.58E+07	Yes
100-K-105_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,700	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	270,000	2.34E+07	11	2.21E+06	No
100-K-105_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	300	953,947	11	89,956	No
100-K-105_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,200	6.10E+06	11	575,082	No
100-K-105_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	510	139,329	11	13,139	No
100-K-105_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	18	385,420	11	36,345	No
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000	2.07E+08	11	1.95E+07	No
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570	3.89E+08	11	3.67E+07	No
100-K-105_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	320	2.14E+06	11	201,734	No
100-K-105_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	41,000	2.66E+08	11	2.51E+07	No
100-K-105_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.70E+06	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Antimony	7440-36-0	ug/kg	120	186,126	11	17,551	No
100-K-105_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,500	20,000[d]	11	20,000	No
100-K-105_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	60,000	5.37E+07	11	5.06E+06	No
100-K-105_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	310	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	50	18,834	11	1,776	No
100-K-105_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,200	--b	11	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-105_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,500	148,901	11	14,041	No
100-K-105_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,000	8.40E+06	11	792,477	No
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160	6000[c]	11	6,000	No
100-K-105_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.67E+08	11	1.58E+07	Yes
100-K-105_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,300	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	2.34E+07	11	2.21E+06	No
100-K-105_Shallow_3	non-Rad	Mercury	7439-97-6	ug/kg	8.8	79,331	11	7,481	No
100-K-105_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	290	953,947	11	89,956	No
100-K-105_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	10,000	6.10E+06	11	575,082	No
100-K-105_Shallow_3	non-Rad	Selenium	7782-49-2	ug/kg	540	139,329	11	13,139	No
100-K-105_Shallow_3	non-Rad	Silver	7440-22-4	ug/kg	25	385,420	11	36,345	No
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000	2.07E+08	11	1.95E+07	No
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590	3.89E+08	11	3.67E+07	No
100-K-105_Shallow_3	non-Rad	Uranium	7440-61-1	ug/kg	930	2.14E+06	11	201,734	No
100-K-105_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	43,000	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	54,000	2.66E+08	11	2.51E+07	No
100-K-106_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	992	20,000[d]	4.8	20,000	No
100-K-106_Shallow	non-Rad	Barium	7440-39-3	ug/kg	42,600	5.37E+07	4.8	1.12E+07	No
100-K-106_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	37	18,834	4.8	3,937	No
100-K-106_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	2,790	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	6,380	148,901	4.8	31,124	No
100-K-106_Shallow	non-Rad	Copper	7440-50-8	ug/kg	11,200	8.40E+06	4.8	1.76E+06	No
100-K-106_Shallow	non-Rad	Lead	7439-92-1	ug/kg	1,990	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	203,000	2.34E+07	4.8	4.89E+06	No
100-K-106_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	228	953,947	4.8	199,397	No
100-K-106_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,250	6.10E+06	4.8	1.27E+06	No
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500	2.07E+08	4.8	4.32E+07	No
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332	3.89E+08	4.8	8.13E+07	No
100-K-106_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	292	2.14E+06	4.8	447,162	No
100-K-106_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	33,000	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	33,200	2.66E+08	4.8	5.56E+07	No
100-K-106_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,320	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	55,600	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	211	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	59	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,510	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,240	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,100	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,410	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	250,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	265	953,947	1.0	953,947	No
100-K-106_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,170	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	13,100	1.28E+06	1.0	1.28E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	367	2.14E+06	1.0	2.14E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	43,500	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	34,600	2.66E+08	1.0	2.66E+08	No
100-K-106_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,480	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	58,800	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	231	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	52	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	5,370	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	10,200	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,000	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,450	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	399,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490	953,947	1.0	953,947	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-106_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	7,310	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,150	1.28E+06	1.0	1.28E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_2	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	6,500	2.00E+06[e]	1.0	2.00E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	386	2.14E+06	1.0	2.14E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	40,500	2.66E+08	1.0	2.66E+08	No
100-K-106_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,750	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	59,800	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	341	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	70	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	5,710	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,780	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,340	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	326,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499	953,947	1.0	953,947	No
100-K-106_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	7,950	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Nitrate	14797-55-8	ug/kg	20,900	1.28E+06	1.0	1.28E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	34	385,420	1.0	385,420	No
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_3	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	46,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	470	2.14E+06	1.0	2.14E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	54,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	43,800	2.66E+08	1.0	2.66E+08	No
100-K-106_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,010	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	49,000	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	187	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,280	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,950	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	1,830	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	262,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	303	953,947	1.0	953,947	No
100-K-106_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,250	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	356	2.14E+06	1.0	2.14E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	40,700	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	35,000	2.66E+08	1.0	2.66E+08	No
100-K-106_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,730	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	53,300	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	319	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	52	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,680	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,960	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	15,000	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	2,760	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	261,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	372	953,947	1.0	953,947	No
100-K-106_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	7,110	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_5	non-Rad	Selenium	7782-49-2	ug/kg	275	139,329	1.0	139,329	No
100-K-106_Shallow_Focused_5	non-Rad	Silver	7440-22-4	ug/kg	33	385,420	1.0	385,420	No
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_5	non-Rad	Uranium	7440-61-1	ug/kg	488	2.14E+06	1.0	2.14E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-106_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	58,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	39,800	2.66E+08	1.0	2.66E+08	No
100-K-106_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	57,200	5.37E+07	1.0	5.37E+07	No
100-K-106_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	329	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Cadmium	7440-43-9	ug/kg	41	18,834	1.0	18,834	No
100-K-106_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	6,070	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	9,640	148,901	1.0	148,901	No
100-K-106_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	16,200	8.40E+06	1.0	8.40E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	3,380	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	330,000	2.34E+07	1.0	2.34E+07	No
100-K-106_Shallow_Focused_6	non-Rad	Molybdenum	7439-98-7	ug/kg	298	953,947	1.0	953,947	No
100-K-106_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	9,740	6.10E+06	1.0	6.10E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Nitrate	14797-55-8	ug/kg	10,400	1.28E+06	1.0	1.28E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Selenium	7782-49-2	ug/kg	253	139,329	1.0	139,329	No
100-K-106_Shallow_Focused_6	non-Rad	Silver	7440-22-4	ug/kg	25	385,420	1.0	385,420	No
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800	2.07E+08	1.0	2.07E+08	No
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465	3.89E+08	1.0	3.89E+08	No
100-K-106_Shallow_Focused_6	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	50,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Uranium	7440-61-1	ug/kg	478	2.14E+06	1.0	2.14E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	44,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	38,600	2.66E+08	1.0	2.66E+08	No
100-K-109_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,190	20,000[d]	21	20,000	No
100-K-109_Shallow	non-Rad	Barium	7440-39-3	ug/kg	56,735	5.37E+07	21	2.51E+06	No
100-K-109_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	296	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Boron	7440-42-8	ug/kg	898	5.38E+06	21	251,269	No
100-K-109_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.022	389,000	21	18,156	No
100-K-109_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,903	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,090	148,901	21	6,950	Yes
100-K-109_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,732	8.40E+06	21	392,245	No
100-K-109_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,032	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	331,189	2.34E+07	21	1.09E+06	No
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76	79,331	21	3,703	No
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480	953,947	21	44,525	No
100-K-109_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,689	6.10E+06	21	284,643	No
100-K-109_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	7,823	1.28E+06	21	59,716	No
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	139,329	21	6,503	No
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362	2.07E+08	21	9.64E+06	No
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446	3.89E+08	21	1.82E+07	No
100-K-109_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	456	2.14E+06	21	99,850	No
100-K-109_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	57,582	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	43,302	2.66E+08	21	1.24E+07	No
100-K-109_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	1,900	20,000[d]	1.0	20,000	No
100-K-109_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	60,200	5.37E+07	1.0	5.37E+07	No
100-K-109_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	300	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	81	18,834	1.0	18,834	No
100-K-109_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,900	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,100	148,901	1.0	148,901	No
100-K-109_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	8.40E+06	1.0	8.40E+06	No
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167	6000[c]	1.0	6,000	No
100-K-109_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,200	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	359,000	2.34E+07	1.0	2.34E+07	No
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14	79,331	1.0	79,331	No
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480	953,947	1.0	953,947	No
100-K-109_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,500	6.10E+06	1.0	6.10E+06	No
100-K-109_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	5,050	1.28E+06	1.0	1.28E+06	No
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900	139,329	1.0	139,329	No
100-K-109_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	47	385,420	1.0	385,420	No
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700	2.07E+08	1.0	2.07E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970	3.89E+08	1.0	3.89E+08	No
100-K-109_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	460	2.14E+06	1.0	2.14E+06	No
100-K-109_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	75,500	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	56,100	2.66E+08	1.0	2.66E+08	No
100-K-110_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	7.00E+06	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417	186,126	134	1,386	Yes
100-K-110_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	8,694	20,000[d]	134	20,000	No
100-K-110_Shallow	non-Rad	Barium	7440-39-3	ug/kg	73,627	5.37E+07	134	399,857	No
100-K-110_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	326	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	118	18,834	134	140	No
100-K-110_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.094	389,000	134	2,897	No
100-K-110_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,294	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,749	148,901	134	1,109	Yes
100-K-110_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,605	8.40E+06	134	62,590	No
100-K-110_Shallow	Rad	Europium-155	14391-16-3	pCi/g	0.034	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199	6000[c]	134	6,000	No
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	1.67E+08	134	1.24E+06	Yes
100-K-110_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,648	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	412,928	2.34E+07	134	174,414	Yes
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	79,331	134	591	No
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587	953,947	134	7,105	No
100-K-110_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,586	6.10E+06	134	45,420	No
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	139,329	134	1,038	Yes
100-K-110_Shallow	non-Rad	Silver	7440-22-4	ug/kg	38	385,420	134	2,871	No
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258	2.07E+08	134	1.54E+06	No
100-K-110_Shallow	non-Rad	Thallium	7440-28-0	ug/kg	142	36,766	134	274	No
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994	3.89E+08	134	2.90E+06	No
100-K-110_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,610	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	2.66E+08	134	1.98E+06	No
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870	18,834	1.0	18,834	No
100-K-110_Shallow_focused	non-Rad	Chromium	7440-47-3	ug/kg	8,640	--b	1.0	--b	--b
100-K-110_Shallow_focused	non-Rad	Lead	7439-92-1	ug/kg	5,630	--b	1.0	--b	--b
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110	79,331	1.0	79,331	No
100-K-14, 126-KE-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,152	186,126	11	17,226	No
100-K-14, 126-KE-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,120	20,000[d]	11	20,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,924	5.37E+07	11	4.97E+06	No
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604	5.38E+06	11	498,235	No
100-K-14, 126-KE-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,578	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,836	148,901	11	13,781	No
100-K-14, 126-KE-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,884	8.40E+06	11	777,774	No
100-K-14, 126-KE-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,373	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	398,037	2.34E+07	11	2.17E+06	No
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	79,331	11	7,342	No
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222	953,947	11	88,287	No
100-K-14, 126-KE-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,912	6.10E+06	11	564,412	No
100-K-14, 126-KE-2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	2,636	1.28E+06	11	118,410	No
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141	139,329	11	12,895	No
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958	385,420	11	35,670	No
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,730	2.66E+08	11	2.46E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	4,335	20,000[d]	7.0	20,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,392	5.37E+07	7.0	7.69E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	414	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,701	5.38E+06	7.0	770,823	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	93	18,834	7.0	2,697	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,100	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,643	148,901	7.0	21,320	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,484	8.40E+06	7.0	1.20E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233	6000[c]	7.0	6,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,780	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	421,132	2.34E+07	7.0	3.35E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	68	79,331	7.0	11,359	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	622	953,947	7.0	136,590	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,208	6.10E+06	7.0	873,207	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	24,794	1.28E+06	7.0	183,193	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,057	139,329	7.0	19,950	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	34,319	2.07E+08	7.0	2.96E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	626	3.89E+08	7.0	5.57E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	639	2.14E+06	7.0	306,313	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	87,520	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	60,142	2.66E+08	7.0	3.81E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	1,600	20,000[d]	1.0	20,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	54,400	5.37E+07	1.0	5.37E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	61	18,834	1.0	18,834	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,400	148,901	1.0	148,901	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	17,400	8.40E+06	1.0	8.40E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764	6000[c]	1.0	6,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,100	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	294,000	2.34E+07	1.0	2.34E+07	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	290	79,331	1.0	79,331	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	510	953,947	1.0	953,947	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,100	6.10E+06	1.0	6.10E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,700	139,329	1.0	139,329	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	53	385,420	1.0	385,420	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	20,500	2.07E+08	1.0	2.07E+08	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	480	3.89E+08	1.0	3.89E+08	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	380	2.14E+06	1.0	2.14E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	55,700	2.66E+08	1.0	2.66E+08	No
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98	14,979	1.0	14,979	No
100-K-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300	20,000[d]	1.0	20,000	No
100-K-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	66,400	5.37E+07	1.0	5.37E+07	No
100-K-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	18,834	1.0	18,834	No
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700	--b	1.0	--b	--b
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200	6000[c]	1.0	6,000	No
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200	--b	1.0	--b	--b
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50	79,331	1.0	79,331	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,520	186,126	1.0	186,126	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7	99,567	1.0	99,567	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	14,979	1.0	14,979	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	4,321	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Barium	7440-39-3	ug/kg	72,619	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	307	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,129	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	87	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.062	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chromium	7440-47-3	ug/kg	6,988	--b	1.0	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	9,620	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Copper	7440-50-8	ug/kg	18,087	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Lead	7439-92-1	ug/kg	5,538	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Manganese	7439-96-5	ug/kg	315,657	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28	79,331	1.0	79,331	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	374	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nickel	7440-02-0	ug/kg	9,603	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	6,970	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Selenium	7782-49-2	ug/kg	285	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Silver	7440-22-4	ug/kg	63	385,420	1.0	385,420	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Uranium	7440-61-1	ug/kg	557	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-235	15117-96-1	pCi/g	0.012	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	47,848	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Zinc	7440-66-6	ug/kg	44,799	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	597	186,126	1.0	186,126	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	42,600	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	133	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	707	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	0.037	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	6,600	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,800	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	4,430	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	217,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	331	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	7,010	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,100	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808	3.89E+08	1.0	3.89E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	308	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.11	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	28,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	31,500	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Barium	7440-39-3	ug/kg	48,000	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Beryllium	7440-41-7	ug/kg	214	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Boron	7440-42-8	ug/kg	664	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cadmium	7440-43-9	ug/kg	56	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chromium	7440-47-3	ug/kg	4,160	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cobalt	7440-48-4	ug/kg	8,180	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Copper	7440-50-8	ug/kg	16,000	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Lead	7439-92-1	ug/kg	2,860	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Manganese	7439-96-5	ug/kg	265,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Molybdenum	7439-98-7	ug/kg	195	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nickel	7440-02-0	ug/kg	7,500	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nitrate	14797-55-8	ug/kg	8,010	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Uranium	7440-61-1	ug/kg	344	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-235	15117-96-1	pCi/g	0.017	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Vanadium	7440-62-2	ug/kg	30,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Zinc	7440-66-6	ug/kg	34,100	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	374	186,126	1.0	186,126	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	14,979	1.0	14,979	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,376	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,180	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	312	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,900	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	97	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.29	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,672	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,148	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,544	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42	--b	1.0	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6000[c]	1.0	6,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,602	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	344,962	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50	79,331	1.0	79,331	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,440	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	12,632	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	258	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	385,420	1.0	385,420	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	464	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.018	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,526	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,004	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	14,979	1.0	14,979	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,640	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	48,800	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	197	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	0.057	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	2,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	8,120	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,700	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,190	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	258,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	224	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	6,370	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	8,680	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	369	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.017	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	30,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	33,600	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,110	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	68,900	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0	--b	1.0	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	303	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,920	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,860	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,900	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,520	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	335,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	242	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	11,100	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.016	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	300	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	485	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-235	15117-96-1	pCi/g	0.0097	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	42,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	42,500	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,100	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	56,800	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	283	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	56	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	4,960	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	8,130	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	15,700	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,940	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	266,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	222	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	7,710	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	408	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-235	15117-96-1	pCi/g	0.020	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	35,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	33,800	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Arsenic	7440-38-2	ug/kg	2,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Barium	7440-39-3	ug/kg	62,500	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Beryllium	7440-41-7	ug/kg	267	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Boron	7440-42-8	ug/kg	958	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cadmium	7440-43-9	ug/kg	70	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chromium	7440-47-3	ug/kg	5,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cobalt	7440-48-4	ug/kg	8,030	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Copper	7440-50-8	ug/kg	14,800	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Lead	7439-92-1	ug/kg	5,150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Manganese	7439-96-5	ug/kg	303,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Molybdenum	7439-98-7	ug/kg	223	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43	110,036	1.0	110,036	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Nickel	7440-02-0	ug/kg	9,520	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.020	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Uranium	7440-61-1	ug/kg	506	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-235	15117-96-1	pCi/g	0.0063	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Vanadium	7440-62-2	ug/kg	28,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Zinc	7440-66-6	ug/kg	36,700	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Arsenic	7440-38-2	ug/kg	2,990	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Barium	7440-39-3	ug/kg	69,700	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Beryllium	7440-41-7	ug/kg	277	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Boron	7440-42-8	ug/kg	1,700	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cadmium	7440-43-9	ug/kg	75	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chromium	7440-47-3	ug/kg	8,670	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cobalt	7440-48-4	ug/kg	8,980	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Copper	7440-50-8	ug/kg	16,900	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Lead	7439-92-1	ug/kg	6,080	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Manganese	7439-96-5	ug/kg	318,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Molybdenum	7439-98-7	ug/kg	273	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nickel	7440-02-0	ug/kg	10,300	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nitrate	14797-55-8	ug/kg	5,000	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Uranium	7440-61-1	ug/kg	506	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-235	15117-96-1	pCi/g	0.0070	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-238	7440-61-1	pCi/g	0.23	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Vanadium	7440-62-2	ug/kg	36,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Zinc	7440-66-6	ug/kg	38,800	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Antimony	7440-36-0	ug/kg	319	186,126	1.0	186,126	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Barium	7440-39-3	ug/kg	55,200	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Beryllium	7440-41-7	ug/kg	291	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Boron	7440-42-8	ug/kg	2,970	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cadmium	7440-43-9	ug/kg	63	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chromium	7440-47-3	ug/kg	8,390	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cobalt	7440-48-4	ug/kg	8,390	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Copper	7440-50-8	ug/kg	16,500	8.40E+06	1.0	8.40E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Manganese	7439-96-5	ug/kg	275,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Nickel	7440-02-0	ug/kg	19,100	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Uranium	7440-61-1	ug/kg	437	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-235	15117-96-1	pCi/g	0.0099	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Vanadium	7440-62-2	ug/kg	23,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Zinc	7440-66-6	ug/kg	32,700	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Arsenic	7440-38-2	ug/kg	2,680	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Barium	7440-39-3	ug/kg	61,600	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Beryllium	7440-41-7	ug/kg	342	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Boron	7440-42-8	ug/kg	1,600	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cadmium	7440-43-9	ug/kg	72	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chromium	7440-47-3	ug/kg	7,710	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cobalt	7440-48-4	ug/kg	8,670	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Copper	7440-50-8	ug/kg	15,600	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Lead	7439-92-1	ug/kg	5,710	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Manganese	7439-96-5	ug/kg	308,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Molybdenum	7439-98-7	ug/kg	282	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Nickel	7440-02-0	ug/kg	10,200	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Uranium	7440-61-1	ug/kg	484	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-235	15117-96-1	pCi/g	0.0077	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Vanadium	7440-62-2	ug/kg	35,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Zinc	7440-66-6	ug/kg	38,600	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Arsenic	7440-38-2	ug/kg	2,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Barium	7440-39-3	ug/kg	62,200	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chromium	7440-47-3	ug/kg	4,710	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Copper	7440-50-8	ug/kg	18,400	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16	2.30E+07	1.0	2.30E+07	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Lead	7439-92-1	ug/kg	4,020	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Manganese	7439-96-5	ug/kg	290,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Molybdenum	7439-98-7	ug/kg	215	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Nickel	7440-02-0	ug/kg	8,650	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Selenium	7782-49-2	ug/kg	301	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Uranium	7440-61-1	ug/kg	436	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-235	15117-96-1	pCi/g	0.0079	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Vanadium	7440-62-2	ug/kg	30,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Zinc	7440-66-6	ug/kg	38,000	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Arsenic	7440-38-2	ug/kg	3,090	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Barium	7440-39-3	ug/kg	64,200	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Beryllium	7440-41-7	ug/kg	272	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Boron	7440-42-8	ug/kg	806	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cadmium	7440-43-9	ug/kg	87	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Chromium	7440-47-3	ug/kg	8,670	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cobalt	7440-48-4	ug/kg	8,260	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Copper	7440-50-8	ug/kg	16,800	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Manganese	7439-96-5	ug/kg	324,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Molybdenum	7439-98-7	ug/kg	272	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nickel	7440-02-0	ug/kg	11,100	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nitrate	14797-55-8	ug/kg	17,400	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Uranium	7440-61-1	ug/kg	529	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-235	15117-96-1	pCi/g	0.028	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Vanadium	7440-62-2	ug/kg	35,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Zinc	7440-66-6	ug/kg	40,200	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Arsenic	7440-38-2	ug/kg	2,610	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Barium	7440-39-3	ug/kg	58,000	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Beryllium	7440-41-7	ug/kg	296	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chromium	7440-47-3	ug/kg	6,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Cobalt	7440-48-4	ug/kg	8,150	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Copper	7440-50-8	ug/kg	16,500	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Lead	7439-92-1	ug/kg	4,780	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Manganese	7439-96-5	ug/kg	306,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Molybdenum	7439-98-7	ug/kg	250	953,947	1.0	953,947	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nickel	7440-02-0	ug/kg	9,500	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nitrate	14797-55-8	ug/kg	4,560	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Uranium	7440-61-1	ug/kg	370	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-235	15117-96-1	pCi/g	0.0078	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Vanadium	7440-62-2	ug/kg	38,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Zinc	7440-66-6	ug/kg	38,200	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Arsenic	7440-38-2	ug/kg	2,700	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Barium	7440-39-3	ug/kg	66,000	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Beryllium	7440-41-7	ug/kg	229	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cadmium	7440-43-9	ug/kg	64	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Cesium-137	10045-97-3	pCi/g	0.50	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chromium	7440-47-3	ug/kg	6,520	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cobalt	7440-48-4	ug/kg	9,360	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Copper	7440-50-8	ug/kg	18,800	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Lead	7439-92-1	ug/kg	3,690	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Manganese	7439-96-5	ug/kg	331,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Molybdenum	7439-98-7	ug/kg	244	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Nickel	7440-02-0	ug/kg	10,500	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Uranium	7440-61-1	ug/kg	528	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-233/234	U-233/234	pCi/g	0.23	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-235	15117-96-1	pCi/g	0.022	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-238	7440-61-1	pCi/g	0.21	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Vanadium	7440-62-2	ug/kg	35,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Zinc	7440-66-6	ug/kg	39,200	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Arsenic	7440-38-2	ug/kg	1,290	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Barium	7440-39-3	ug/kg	40,000	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Beryllium	7440-41-7	ug/kg	175	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Boron	7440-42-8	ug/kg	549	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Chromium	7440-47-3	ug/kg	1,450	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Copper	7440-50-8	ug/kg	14,400	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Lead	7439-92-1	ug/kg	2,070	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Manganese	7439-96-5	ug/kg	205,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Molybdenum	7439-98-7	ug/kg	175	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Nickel	7440-02-0	ug/kg	5,200	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Selenium	7782-49-2	ug/kg	282	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600	2.07E+08	1.0	2.07E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m\ or \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Uranium	7440-61-1	ug/kg	373	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-235	15117-96-1	pCi/g	0.030	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-238	7440-61-1	pCi/g	0.18	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Vanadium	7440-62-2	ug/kg	24,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Zinc	7440-66-6	ug/kg	27,300	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Arsenic	7440-38-2	ug/kg	2,390	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Barium	7440-39-3	ug/kg	51,800	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Beryllium	7440-41-7	ug/kg	247	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Boron	7440-42-8	ug/kg	2,010	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cadmium	7440-43-9	ug/kg	62	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chromium	7440-47-3	ug/kg	7,090	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cobalt	7440-48-4	ug/kg	6,860	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Copper	7440-50-8	ug/kg	13,800	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Lead	7439-92-1	ug/kg	5,070	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Manganese	7439-96-5	ug/kg	247,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Molybdenum	7439-98-7	ug/kg	211	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nickel	7440-02-0	ug/kg	8,640	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nitrate	14797-55-8	ug/kg	4,390	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.018	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Uranium	7440-61-1	ug/kg	371	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-235	15117-96-1	pCi/g	0.018	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Vanadium	7440-62-2	ug/kg	23,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Zinc	7440-66-6	ug/kg	31,100	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58	2.62E+06	1.0	2.62E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28	14,979	1.0	14,979	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Arsenic	7440-38-2	ug/kg	1,710	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Barium	7440-39-3	ug/kg	45,400	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Beryllium	7440-41-7	ug/kg	189	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cadmium	7440-43-9	ug/kg	83	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chromium	7440-47-3	ug/kg	2,370	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cobalt	7440-48-4	ug/kg	7,920	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Copper	7440-50-8	ug/kg	15,600	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5	2.83E+06	1.0	2.83E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4	--b	1.0	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Lead	7439-92-1	ug/kg	3,330	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Manganese	7439-96-5	ug/kg	218,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Molybdenum	7439-98-7	ug/kg	234	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29	110,036	1.0	110,036	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Nickel	7440-02-0	ug/kg	5,650	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Uranium	7440-61-1	ug/kg	408	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-235	15117-96-1	pCi/g	0.014	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Vanadium	7440-62-2	ug/kg	28,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Zinc	7440-66-6	ug/kg	30,900	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Antimony	7440-36-0	ug/kg	392	186,126	1.0	186,126	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Arsenic	7440-38-2	ug/kg	3,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Barium	7440-39-3	ug/kg	72,600	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Beryllium	7440-41-7	ug/kg	357	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Boron	7440-42-8	ug/kg	1,450	5.38E+06	1.0	5.38E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cadmium	7440-43-9	ug/kg	104	18,834	1.0	18,834	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Cesium-137	10045-97-3	pCi/g	0.059	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chromium	7440-47-3	ug/kg	6,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	148,901	1.0	148,901	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Copper	7440-50-8	ug/kg	18,400	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Lead	7439-92-1	ug/kg	6,840	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Manganese	7439-96-5	ug/kg	321,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625	953,947	1.0	953,947	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nickel	7440-02-0	ug/kg	9,750	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nitrate	14797-55-8	ug/kg	4,650	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Selenium	7782-49-2	ug/kg	273	139,329	1.0	139,329	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Silver	7440-22-4	ug/kg	59	385,420	1.0	385,420	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Uranium	7440-61-1	ug/kg	548	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-235	15117-96-1	pCi/g	0.0061	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--g	1.0	--g	--g
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Vanadium	7440-62-2	ug/kg	44,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Zinc	7440-66-6	ug/kg	45,600	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.36	92,105	1.0	92,105	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,560	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	60,100	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	269	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	71	18,834	1.0	18,834	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	48	389,000	1.0	389,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	3,330	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	148,901	1.0	148,901	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,900	8.40E+06	1.0	8.40E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,540	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	267,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	315	953,947	1.0	953,947	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,820	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Selenium	7782-49-2	ug/kg	313	139,329	1.0	139,329	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Silver	7440-22-4	ug/kg	29	385,420	1.0	385,420	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	26,400	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	16	22,536	1.0	22,536	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	410	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	437	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.026	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	49,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	38,500	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092	92,105	3.0	30,347	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	193	186,126	3.0	61,326	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,726	20,000[d]	3.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,394	5.37E+07	3.0	1.77E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	406	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	83	18,834	3.0	6,206	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	3.0	128,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,069	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,796	148,901	3.0	49,061	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,640	8.40E+06	3.0	2.77E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,721	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	325,964	2.34E+07	3.0	7.72E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	382	953,947	3.0	314,312	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,444	6.10E+06	3.0	2.01E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	139,329	3.0	45,907	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Silver	7440-22-4	ug/kg	41	385,420	3.0	126,991	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952	2.07E+08	3.0	6.81E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89	22,536	3.0	7,425	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456	3.89E+08	3.0	1.28E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	530	2.14E+06	3.0	704,869	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--g	3.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--g	3.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	3.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	53,139	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,856	2.66E+08	3.0	8.76E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Anthracene	120-12-7	ug/kg	2.2	6.73E+07	1.0	6.73E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Antimony	7440-36-0	ug/kg	120	186,126	1.0	186,126	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	63,000	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	280	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	87	18,834	1.0	18,834	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	4,700	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	12	3.89E+08	1.0	3.89E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	12,200	148,901	1.0	148,901	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	17,100	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	18	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,800	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	364,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	430	953,947	1.0	953,947	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	9,000	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	2,390	1.28E+06	1.0	1.28E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	3.22E+07	1.0	3.22E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Selenium	7782-49-2	ug/kg	1,800	139,329	1.0	139,329	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Silver	7440-22-4	ug/kg	49	385,420	1.0	385,420	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	25,400	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	590	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	460	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.41	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.31	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	60,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	48,100	2.66E+08	1.0	2.66E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	1.0	92,105	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	1,200	186,126	1.0	186,126	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21	14,979	1.0	14,979	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	3,100	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	57,800	5.37E+07	1.0	5.37E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50	7.67E+06	1.0	7.67E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	270	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	110	18,834	1.0	18,834	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	1.0	389,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,600	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chrysene	218-01-9	ug/kg	73	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	148,901	1.0	148,901	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,100	8.40E+06	1.0	8.40E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Europium-152	14683-23-9	pCi/g	0.23	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	150	2.30E+07	1.0	2.30E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	6,900	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	2.34E+07	1.0	2.34E+07	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	400	953,947	1.0	953,947	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	9,400	6.10E+06	1.0	6.10E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	1,600	139,329	1.0	139,329	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	45	385,420	1.0	385,420	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	27,800	2.07E+08	1.0	2.07E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Strontium-90	10098-97-2	pCi/g	0.96	22,536	1.0	22,536	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	570	3.89E+08	1.0	3.89E+08	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	430	2.14E+06	1.0	2.14E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.60	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.56	--g	1.0	--g	--g
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	53,600	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	50,300	2.66E+08	1.0	2.66E+08	No
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035	92,105	1.0	92,105	No
100-K-3_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	554	186,126	1.0	186,126	No
100-K-3_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,190	20,000[d]	1.0	20,000	No
100-K-3_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	98,100	5.37E+07	1.0	5.37E+07	No
100-K-3_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	416	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	18,834	1.0	18,834	No
100-K-3_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.23	389,000	1.0	389,000	No
100-K-3_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	9,000	--b	1.0	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	10,700	148,901	1.0	148,901	No
100-K-3_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,900	8.40E+06	1.0	8.40E+06	No
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,110	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	424,000	2.34E+07	1.0	2.34E+07	No
100-K-3_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	435	953,947	1.0	953,947	No
100-K-3_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,300	6.10E+06	1.0	6.10E+06	No
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	281	139,329	1.0	139,329	No
100-K-3_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	56	385,420	1.0	385,420	No
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100	2.07E+08	1.0	2.07E+08	No
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636	3.89E+08	1.0	3.89E+08	No
100-K-3_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	815	2.14E+06	1.0	2.14E+06	No
100-K-3_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	1.0	--g	--g
100-K-3_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--g	1.0	--g	--g
100-K-3_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	47,700	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,600	2.66E+08	1.0	2.66E+08	No
100-K-3_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,730	20,000[d]	1.0	20,000	No
100-K-3_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	70,100	5.37E+07	1.0	5.37E+07	No
100-K-3_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	334	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	833	5.38E+06	1.0	5.38E+06	No
100-K-3_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	83	18,834	1.0	18,834	No
100-K-3_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.077	389,000	1.0	389,000	No
100-K-3_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,540	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	148,901	1.0	148,901	No
100-K-3_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,400	8.40E+06	1.0	8.40E+06	No
100-K-3_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,460	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	301,000	2.34E+07	1.0	2.34E+07	No
100-K-3_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	394	953,947	1.0	953,947	No
100-K-3_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,590	6.10E+06	1.0	6.10E+06	No
100-K-3_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,330	1.28E+06	1.0	1.28E+06	No
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	262	139,329	1.0	139,329	No
100-K-3_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	35	385,420	1.0	385,420	No
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500	2.07E+08	1.0	2.07E+08	No
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67	22,536	1.0	22,536	No
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481	3.89E+08	1.0	3.89E+08	No
100-K-3_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	522	2.14E+06	1.0	2.14E+06	No
100-K-3_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	--g	1.0	--g	--g
100-K-3_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.21	--g	1.0	--g	--g
100-K-3_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	53,700	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	45,000	2.66E+08	1.0	2.66E+08	No
100-K-30_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600	20,000[d]	1.0	20,000	No
100-K-30_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	69,700	5.37E+07	1.0	5.37E+07	No
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640	18,834	1.0	18,834	No
100-K-30_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,200	--b	1.0	--b	--b
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702	6000[c]	1.0	6,000	No
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000	--b	1.0	--b	--b
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	79,331	1.0	79,331	No
100-K-31_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	5.37E+07	1.0	5.37E+07	No
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750	18,834	1.0	18,834	No
100-K-31_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,300	--b	1.0	--b	--b
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220	6000[c]	1.0	6,000	No
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400	--b	1.0	--b	--b
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	79,331	1.0	79,331	No
100-K-31_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	400	139,329	1.0	139,329	No
100-K-32_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,000	20,000[d]	1.0	20,000	No
100-K-32_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	97,400	5.37E+07	1.0	5.37E+07	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-32_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	380	18,834	1.0	18,834	No
100-K-32_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,900	--b	1.0	--b	--b
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6000[c]	1.0	6,000	No
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800	--b	1.0	--b	--b
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	79,331	1.0	79,331	No
100-K-33_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,700	20,000[d]	1.0	20,000	No
100-K-33_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	105,000	5.37E+07	1.0	5.37E+07	No
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000	18,834	1.0	18,834	No
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900	--b	1.0	--b	--b
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400	6000[c]	1.0	6,000	No
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800	--b	1.0	--b	--b
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	79,331	1.0	79,331	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	417	186,126	15	12,743	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,670	20,000[d]	15	20,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,900	5.37E+07	15	3.68E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	320	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,760	5.38E+06	15	368,562	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	141	18,834	15	1,289	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,300	148,901	15	10,194	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	8.40E+06	15	575,347	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124	6000[c]	15	6,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	383,474	2.34E+07	15	1.60E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189	79,331	15	5,431	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967	953,947	15	65,309	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176	6.10E+06	15	417,516	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	38,265	1.28E+06	15	87,592	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	754	139,329	15	9,539	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700	2.07E+08	15	1.41E+07	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620	3.89E+08	15	2.66E+07	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	675	2.14E+06	15	146,461	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	73,516	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,300	2.66E+08	15	1.82E+07	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	7,700	186,126	1.0	186,126	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	14,800	20,000[d]	1.0	20,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,500	5.37E+07	1.0	5.37E+07	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	410	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950	18,834	1.0	18,834	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,900	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	12,000	148,901	1.0	148,901	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500	8.40E+06	1.0	8.40E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700	3.89E+08	1.0	3.89E+08	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	408,000	2.34E+07	1.0	2.34E+07	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	79,331	1.0	79,331	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620	953,947	1.0	953,947	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	6.10E+06	1.0	6.10E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	26,600	1.28E+06	1.0	1.28E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200	139,329	1.0	139,329	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	74	385,420	1.0	385,420	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400	2.07E+08	1.0	2.07E+08	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800	3.89E+08	1.0	3.89E+08	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	810	2.14E+06	1.0	2.14E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000	2.66E+08	1.0	2.66E+08	No
100-K-34_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,620	20,000[d]	2.9	20,000	No
100-K-34_Shallow	non-Rad	Barium	7440-39-3	ug/kg	53,400	5.37E+07	2.9	1.83E+07	No
100-K-34_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	412	--b	2.9	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-34_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,150	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,600	148,901	2.9	50,886	No
100-K-34_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,600	8.40E+06	2.9	2.87E+06	No
100-K-34_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,960	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	415,000	2.34E+07	2.9	8.00E+06	No
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641	953,947	2.9	326,006	No
100-K-34_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,360	6.10E+06	2.9	2.08E+06	No
100-K-34_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	5,890	1.28E+06	2.9	437,235	No
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913	139,329	2.9	47,615	No
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600	2.07E+08	2.9	7.06E+07	No
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480	3.89E+08	2.9	1.33E+08	No
100-K-34_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	490	2.14E+06	2.9	731,094	No
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,700	2.66E+08	2.9	9.09E+07	No
100-K-36_Deep_Focused	non-Rad	Antimony	7440-36-0	ug/kg	315	186,126	1.0	186,126	No
100-K-36_Deep_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,990	20,000[d]	1.0	20,000	No
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	5.37E+07	1.0	5.37E+07	No
100-K-36_Deep_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	766	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,320	5.38E+06	1.0	5.38E+06	No
100-K-36_Deep_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	175	18,834	1.0	18,834	No
100-K-36_Deep_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,700	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900	148,901	1.0	148,901	No
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500	8.40E+06	1.0	8.40E+06	No
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000	2.34E+07	1.0	2.34E+07	No
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27	79,331	1.0	79,331	No
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852	953,947	1.0	953,947	No
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000	6.10E+06	1.0	6.10E+06	No
100-K-36_Deep_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	4,250	1.28E+06	1.0	1.28E+06	No
100-K-36_Deep_Focused	non-Rad	Silver	7440-22-4	ug/kg	94	385,420	1.0	385,420	No
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200	2.07E+08	1.0	2.07E+08	No
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210	3.89E+08	1.0	3.89E+08	No
100-K-36_Deep_Focused	non-Rad	Uranium	7440-61-1	ug/kg	1,190	2.14E+06	1.0	2.14E+06	No
100-K-36_Deep_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	--g	1.0	--g	--g
100-K-36_Deep_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--g	1.0	--g	--g
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000	2.66E+08	1.0	2.66E+08	No
100-K-36_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,440	20,000[d]	1.00	20,000	No
100-K-36_Shallow	non-Rad	Barium	7440-39-3	ug/kg	74,300	5.37E+07	1.00	5.39E+07	No
100-K-36_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	303	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,010	5.38E+06	1.00	5.40E+06	No
100-K-36_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	18,834	1.00	18,906	No
100-K-36_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,310	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,020	148,901	1.00	149,470	No
100-K-36_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,600	8.40E+06	1.00	8.44E+06	No
100-K-36_Shallow	non-Rad	Lead	7439-92-1	ug/kg	3,980	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	288,000	2.34E+07	1.00	2.35E+07	No
100-K-36_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	419	953,947	1.00	957,591	No
100-K-36_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,300	6.10E+06	1.00	6.12E+06	No
100-K-36_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	18,900	1.28E+06	1.00	1.28E+06	No
100-K-36_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	385,420	1.00	386,892	No
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500	2.07E+08	1.00	2.07E+08	No
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452	3.89E+08	1.00	3.90E+08	No
100-K-36_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	461	2.14E+06	1.00	2.15E+06	No
100-K-36_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.19	--g	1.00	--g	--g
100-K-36_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--g	1.00	--g	--g
100-K-36_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	45,500	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	42,800	2.66E+08	1.00	2.67E+08	No
100-K-4_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,884	20,000[d]	37	20,000	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000	5.37E+07	37	1.44E+06	No
100-K-4_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	200	--b	37	--b	--b
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700	5.38E+06	37	144,885	No
100-K-4_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.021	389,000	37	10,469	No
100-K-4_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,570	--b	37	--b	--b
100-K-4_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	148,901	37	4,007	Yes
100-K-4_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,000	8.40E+06	37	226,175	No
100-K-4_Deep	non-Rad	Lead	7439-92-1	ug/kg	4,275	--b	37	--b	--b
100-K-4_Deep	non-Rad	Manganese	7439-96-5	ug/kg	353,591	2.34E+07	37	630,258	No
100-K-4_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	385	953,947	37	25,674	No
100-K-4_Deep	non-Rad	Nickel	7440-02-0	ug/kg	6,416	6.10E+06	37	164,130	No
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	139,329	37	3,750	No
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010	2.07E+08	37	5.56E+06	No
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430	3.89E+08	37	1.05E+07	No
100-K-4_Deep	non-Rad	Uranium	7440-61-1	ug/kg	1,030	2.14E+06	37	57,575	No
100-K-4_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	--g	37	--g	--g
100-K-4_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.69	--g	37	--g	--g
100-K-4_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	59,126	--b	37	--b	--b
100-K-4_Deep	non-Rad	Zinc	7440-66-6	ug/kg	37,800	2.66E+08	37	7.16E+06	No
100-K-4_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	320	186,126	37	5,009	No
100-K-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,410	20,000[d]	37	20,000	No
100-K-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	72,700	5.37E+07	37	1.44E+06	No
100-K-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	250	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800	5.38E+06	37	144,885	No
100-K-4_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	120	18,834	37	507	No
100-K-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	37	10,469	No
100-K-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,200	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,550	148,901	37	4,007	Yes
100-K-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,000	8.40E+06	37	226,175	No
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	313,000	2.34E+07	37	630,258	No
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483	953,947	37	25,674	No
100-K-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,658	6.10E+06	37	164,130	No
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	139,329	37	3,750	No
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529	2.07E+08	37	5.56E+06	No
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516	3.89E+08	37	1.05E+07	No
100-K-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	640	2.14E+06	37	57,575	No
100-K-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--g	37	--g	--g
100-K-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.70	--g	37	--g	--g
100-K-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	55,990	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,213	2.66E+08	37	7.16E+06	No
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43	92,105	1.8	52,415	No
100-K-46_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,180	186,126	1.8	105,920	No
100-K-46_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	5,180	20,000[d]	1.8	20,000	No
100-K-46_Deep	non-Rad	Barium	7440-39-3	ug/kg	79,500	5.37E+07	1.8	3.06E+07	No
100-K-46_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	436	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,130	5.38E+06	1.8	3.06E+06	No
100-K-46_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	78	18,834	1.8	10,718	No
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6	57	1.8	32	No
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2	389,000	1.8	221,371	No
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	11,200	148,901	1.8	84,736	No
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	8.40E+06	1.8	4.78E+06	No
100-K-46_Deep	non-Rad	Lead	7439-92-1	ug/kg	6,930	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Manganese	7439-96-5	ug/kg	416,000	2.34E+07	1.8	1.33E+07	No
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770	953,947	1.8	542,870	No
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300	6.10E+06	1.8	3.47E+06	No
100-K-46_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	4,430	1.28E+06	1.8	728,091	No
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--b	1.8	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Silver	7440-22-4	ug/kg	102	385,420	1.8	219,334	No
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000	2.07E+08	1.8	1.18E+08	No
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99	22,536	1.8	12,825	No
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720	3.89E+08	1.8	2.21E+08	No
100-K-46_Deep	non-Rad	Uranium	7440-61-1	ug/kg	583	2.14E+06	1.8	1.22E+06	No
100-K-46_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	1.8	--g	--g
100-K-46_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--g	1.8	--g	--g
100-K-46_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	41,400	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Zinc	7440-66-6	ug/kg	46,500	2.66E+08	1.8	1.51E+08	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	3.0	30,347	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,330	20,000[d]	3.0	20,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Barium	7440-39-3	ug/kg	53,800	5.37E+07	3.0	1.77E+07	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	253	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	59	18,834	3.0	6,206	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.67	389,000	3.0	128,170	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,420	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,660	148,901	3.0	49,061	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,800	8.40E+06	3.0	2.77E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Lead	7439-92-1	ug/kg	2,070	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Manganese	7439-96-5	ug/kg	248,000	2.34E+07	3.0	7.72E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	332	953,947	3.0	314,312	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Nickel	7440-02-0	ug/kg	5,810	6.10E+06	3.0	2.01E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Silver	7440-22-4	ug/kg	27	385,420	3.0	126,991	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600	2.07E+08	3.0	6.81E+07	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8	22,536	3.0	7,425	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400	3.89E+08	3.0	1.28E+08	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Uranium	7440-61-1	ug/kg	389	2.14E+06	3.0	704,869	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--g	3.0	--g	--g
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.12	--g	3.0	--g	--g
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	58,700	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Zinc	7440-66-6	ug/kg	39,700	2.66E+08	3.0	8.76E+07	No
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8	2.62E+06	8.4	310,630	No
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16	6.73E+07	8.4	7.97E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,960	186,126	8.4	22,057	No
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2	14,979	8.4	1,775	No
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,752	20,000[d]	8.4	20,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,832	5.37E+07	8.4	6.36E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169	7.67E+06	8.4	909,189	No
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,384	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011	5.38E+06	8.4	637,976	No
100-K-50, 1607-K2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,916	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208	3.89E+08	8.4	4.61E+07	No
100-K-50, 1607-K2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,506	148,901	8.4	17,646	No
100-K-50, 1607-K2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,182	8.40E+06	8.4	995,917	No
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225	2.30E+07	8.4	2.72E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	2.83E+06	8.4	335,004	No
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383	6000[c]	8.4	6,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,809	--b	8.4	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-50, 1607-K2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,821	2.34E+07	8.4	2.78E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126	79,331	8.4	9,401	No
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565	953,947	8.4	113,049	No
100-K-50, 1607-K2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,105	6.10E+06	8.4	722,714	No
100-K-50, 1607-K2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	21,751	1.28E+06	8.4	151,620	No
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223	3.22E+07	8.4	3.81E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990	139,329	8.4	16,511	No
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785	385,420	8.4	45,675	No
100-K-50, 1607-K2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	4,217	2.00E+06[e]	8.4	2.00E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	80,081	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,702	2.66E+08	8.4	3.15E+07	No
100-K-53_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,836	20,000[d]	1.0	20,000	No
100-K-53_Shallow	non-Rad	Barium	7440-39-3	ug/kg	57,754	5.37E+07	1.0	5.37E+07	No
100-K-53_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	335	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	121	18,834	1.0	18,834	No
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	1.0	389,000	No
100-K-53_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,366	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,340	148,901	1.0	148,901	No
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208	8.40E+06	1.0	8.40E+06	No
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6000[c]	1.0	6,000	No
100-K-53_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,593	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	349,137	2.34E+07	1.0	2.34E+07	No
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58	79,331	1.0	79,331	No
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869	953,947	1.0	953,947	No
100-K-53_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,466	6.10E+06	1.0	6.10E+06	No
100-K-53_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,885	1.28E+06	1.0	1.28E+06	No
100-K-53_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	749	139,329	1.0	139,329	No
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344	2.07E+08	1.0	2.07E+08	No
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509	3.89E+08	1.0	3.89E+08	No
100-K-53_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	542	2.14E+06	1.0	2.14E+06	No
100-K-53_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	75,198	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	54,691	2.66E+08	1.0	2.66E+08	No
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9	389,000	1.0	389,000	No
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59	--b	1.0	--b	--b
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78	--b	1.0	--b	--b
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29	--b	1.0	--b	--b
100-K-55:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.28	389,000	1.0	389,000	No
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19	--b	1.0	--b	--b
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0	--b	1.0	--b	--b
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23	--b	1.0	--b	--b
100-K-55:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.61	389,000	1.0	389,000	No
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11	--b	1.0	--b	--b
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3	--b	1.0	--b	--b
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19	--b	1.0	--b	--b
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37	22,536	1.0	22,536	No
100-K-55:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.70	--g	1.0	--g	--g
100-K-55:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.78	--g	1.0	--g	--g
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26	389,000	1.0	389,000	No
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1	--b	1.0	--b	--b
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31	--b	1.0	--b	--b
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0	--b	1.0	--b	--b
100-K-56:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.0	389,000	1.0	389,000	No
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14	--b	1.0	--b	--b
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3	--b	1.0	--b	--b
100-K-56:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.31	389,000	1.0	389,000	No
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15	--b	1.0	--b	--b
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1	--b	1.0	--b	--b
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33	--b	1.0	--b	--b
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937	6000[c]	1.0	6,000	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50	22,536	1.0	22,536	No
100-K-56:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.45	--g	1.0	--g	--g
100-K-56:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.49	--g	1.0	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	14	6,702	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,339	20,000[d]	14	20,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	66,573	5.37E+07	14	3.91E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	318	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,945	5.38E+06	14	391,696	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	88	18,834	14	1,370	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	57	14	4.1	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7	389,000	14	28,303	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,914	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,853	148,901	14	10,834	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	16,707	8.40E+06	14	611,460	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	7,036	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	317,896	2.34E+07	14	1.70E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482	953,947	14	69,408	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,860	6.10E+06	14	443,722	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,545	1.28E+06	14	93,090	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	270	139,329	14	10,137	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	59	385,420	14	28,043	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747	2.07E+08	14	1.50E+07	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79	22,536	14	1,640	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450	3.89E+08	14	2.83E+07	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	518	2.14E+06	14	155,654	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	40,247	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	40,250	2.66E+08	14	1.93E+07	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1	92,105	14	6,702	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,925	20,000[d]	14	20,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	73,256	5.37E+07	14	3.91E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	422	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	896	5.38E+06	14	391,696	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	92	18,834	14	1,370	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	57	14	4.1	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	14	28,303	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,333	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	11,423	148,901	14	10,834	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	19,939	8.40E+06	14	611,460	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,256	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	376,144	2.34E+07	14	1.70E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595	953,947	14	69,408	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	10,901	6.10E+06	14	443,722	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,216	1.28E+06	14	93,090	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	324	139,329	14	10,137	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	75	385,420	14	28,043	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177	2.07E+08	14	1.50E+07	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11	22,536	14	1,640	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594	3.89E+08	14	2.83E+07	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3	1,040	14	76	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	591	2.14E+06	14	155,654	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-235	15117-96-1	pCi/g	0.022	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.18	--g	14	--g	--g
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	64,300	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	51,024	2.66E+08	14	1.93E+07	No
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055	92,105	2.1	43,064	No
100-K-6_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,280	20,000[d]	2.1	20,000	No
100-K-6_Shallow	non-Rad	Barium	7440-39-3	ug/kg	61,100	5.37E+07	2.1	2.51E+07	No
100-K-6_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	339	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	81	18,834	2.1	8,806	No
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	57	2.1	27	Yes
100-K-6_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.51	389,000	2.1	181,878	No
100-K-6_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,290	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,310	148,901	2.1	69,619	No
100-K-6_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,700	8.40E+06	2.1	3.93E+06	No
100-K-6_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,070	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	279,000	2.34E+07	2.1	1.09E+07	No
100-K-6_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	953,947	2.1	446,021	No
100-K-6_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,270	6.10E+06	2.1	2.85E+06	No
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	139,329	2.1	65,144	No
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800	2.07E+08	2.1	9.66E+07	No
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477	3.89E+08	2.1	1.82E+08	No
100-K-6_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	477	2.14E+06	2.1	1.00E+06	No
100-K-6_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--g	2.1	--g	--g
100-K-6_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.019	--g	2.1	--g	--g
100-K-6_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.20	--g	2.1	--g	--g
100-K-6_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	42,300	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	40,700	2.66E+08	2.1	1.24E+08	No
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	14	6,702	No
100-K-62_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,290	20,000[d]	14	20,000	No
100-K-62_Shallow	non-Rad	Barium	7440-39-3	ug/kg	50,500	5.37E+07	14	3.91E+06	No
100-K-62_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	228	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	55	18,834	14	1,370	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	57	14	4.1	Yes
100-K-62_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.84	389,000	14	28,303	No
100-K-62_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	3,950	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,370	148,901	14	10,834	No
100-K-62_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,900	8.40E+06	14	611,460	No
100-K-62_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,330	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	261,000	2.34E+07	14	1.70E+06	No
100-K-62_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	303	953,947	14	69,408	No
100-K-62_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,970	6.10E+06	14	443,722	No
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--b	14	--b	--b
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	312	139,329	14	10,137	No
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900	2.07E+08	14	1.50E+07	No
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76	22,536	14	1,640	No
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383	3.89E+08	14	2.83E+07	No
100-K-62_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	357	2.14E+06	14	155,654	No
100-K-62_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	--g	14	--g	--g
100-K-62_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.013	--g	14	--g	--g
100-K-62_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--g	14	--g	--g
100-K-62_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	35,000	2.66E+08	14	1.93E+07	No
100-K-63_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	190	186,126	146	1,271	No
100-K-63_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,008	20,000[d]	146	20,000	No
100-K-63_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	69,197	5.37E+07	146	366,481	No
100-K-63_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	345	--b	146	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \; or \; \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-63_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	2,954	5.38E+06	146	36,748	No
100-K-63_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	189	18,834	146	129	Yes
100-K-63_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.31	389,000	146	2,655	No
100-K-63_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,051	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,147	148,901	146	1,016	Yes
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,275	8.40E+06	146	57,366	No
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19	--b	146	--b	--b
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--b	146	--b	--b
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152	6000[c]	146	6,000	No
100-K-63_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	9,659	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	362,077	2.34E+07	146	159,855	Yes
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14	79,331	146	542	No
100-K-63_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	450	953,947	146	6,512	No
100-K-63_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	13,324	6.10E+06	146	41,629	No
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	139,329	146	951	Yes
100-K-63_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	55	385,420	146	2,631	No
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553	2.07E+08	146	1.41E+06	No
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1	22,536	146	154	No
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937	3.89E+08	146	2.66E+06	No
100-K-63_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	516	2.14E+06	146	14,603	No
100-K-63_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,351	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	58,669	2.66E+08	146	1.81E+06	No
100-K-63_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	316	186,126	146	1,271	No
100-K-63_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,876	20,000[d]	146	20,000	No
100-K-63_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	78,317	5.37E+07	146	366,481	No
100-K-63_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	353	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,021	5.38E+06	146	36,748	No
100-K-63_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	178	18,834	146	129	Yes
100-K-63_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.41	389,000	146	2,655	No
100-K-63_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	17,235	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,831	148,901	146	1,016	Yes
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	16,680	8.40E+06	146	57,366	No
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091	--b	146	--b	--b
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	328,776	2.34E+07	146	159,855	Yes
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675	953,947	146	6,512	No
100-K-63_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	15,105	6.10E+06	146	41,629	No
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874	139,329	146	951	No
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140	2.07E+08	146	1.41E+06	No
100-K-63_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.16	22,536	146	154	No
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467	3.89E+08	146	2.66E+06	No
100-K-63_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	690	2.14E+06	146	14,603	No
100-K-63_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,404	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	2.66E+08	146	1.81E+06	No
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57	2.62E+06	3.2	809,270	No
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2	6.73E+07	3.2	2.08E+07	No
100-K-77_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,110	186,126	3.2	57,465	No
100-K-77_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,888	20,000[d]	3.2	20,000	No
100-K-77_Shallow	non-Rad	Barium	7440-39-3	ug/kg	84,028	5.37E+07	3.2	1.66E+07	No
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	410	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	277	18,834	3.2	5,815	No
100-K-77_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.47	389,000	3.2	120,100	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-77_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	16,273	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13	3.89E+08	3.2	1.20E+08	No
100-K-77_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,800	148,901	3.2	45,972	No
100-K-77_Shallow	non-Rad	Copper	7440-50-8	ug/kg	18,900	8.40E+06	3.2	2.59E+06	No
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30	2.30E+07	3.2	7.09E+06	No
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8	2.83E+06	3.2	872,770	No
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130	6000[c]	3.2	6,000	No
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,200	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	2.34E+07	3.2	7.23E+06	No
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389	953,947	3.2	294,522	No
100-K-77_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	13,419	6.10E+06	3.2	1.88E+06	No
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	3.22E+07	3.2	9.93E+06	No
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927	139,329	3.2	43,017	No
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917	2.07E+08	3.2	6.38E+07	No
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160	3.89E+08	3.2	1.20E+08	No
100-K-77_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	771	2.14E+06	3.2	660,488	No
100-K-77_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,900	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,200	2.66E+08	3.2	8.21E+07	No
100-K-78_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.08E+07	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	391	186,126	1.0	186,126	No
100-K-78_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,330	20,000[d]	1.0	20,000	No
100-K-78_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,300	5.37E+07	1.0	5.37E+07	No
100-K-78_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	357	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,570	5.38E+06	1.0	5.38E+06	No
100-K-78_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	136	18,834	1.0	18,834	No
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	No
100-K-78_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.32	389,000	1.0	389,000	No
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,110	148,901	1.0	148,901	No
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	8.40E+06	1.0	8.40E+06	No
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.96E+07	1.67E+08	1.0	1.67E+08	No
100-K-78_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,380	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	288,000	2.34E+07	1.0	2.34E+07	No
100-K-78_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	452	953,947	1.0	953,947	No
100-K-78_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,800	6.10E+06	1.0	6.10E+06	No
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2	19,048	1.0	19,048	No
100-K-78_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.84	--g	1.0	--g	--g
100-K-78_Shallow_Focused	Rad	Uranium-235	15117-96-1	pCi/g	0.048	--g	1.0	--g	--g
100-K-78_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.93	--g	1.0	--g	--g
100-K-78_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	42,900	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,000	2.66E+08	1.0	2.66E+08	No
100-K-84_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.24E+06	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	6,390	20,000[d]	6.5	20,000	No
100-K-84_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,104	5.37E+07	6.5	8.29E+06	No
100-K-84_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	555	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,361	5.38E+06	6.5	831,528	No
100-K-84_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	66	18,834	6.5	2,909	No
100-K-84_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,253	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,127	148,901	6.5	22,999	No
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	8.40E+06	6.5	1.30E+06	No
100-K-84_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.49E+07	1.67E+08	6.5	2.58E+07	No
100-K-84_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,746	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	339,331	2.34E+07	6.5	3.62E+06	No
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	79,331	6.5	12,253	No
100-K-84_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	345	953,947	6.5	147,347	No
100-K-84_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,755	6.10E+06	6.5	941,975	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-84_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	58,919	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	52,211	2.66E+08	6.5	4.11E+07	No
100-K-85_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	7.65E+06	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-85_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	56,700	5.37E+07	1.0	5.37E+07	No
100-K-85_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	230	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,100	5.38E+06	1.0	5.38E+06	No
100-K-85_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	62	18,834	1.0	18,834	No
100-K-85_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,800	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,400	148,901	1.0	148,901	No
100-K-85_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,100	8.40E+06	1.0	8.40E+06	No
100-K-85_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.27E+07	1.67E+08	1.0	1.67E+08	No
100-K-85_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,800	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	327,000	2.34E+07	1.0	2.34E+07	No
100-K-85_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	9.9	79,331	1.0	79,331	No
100-K-85_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	360	953,947	1.0	953,947	No
100-K-85_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,900	6.10E+06	1.0	6.10E+06	No
100-K-85_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	52,800	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	46,500	2.66E+08	1.0	2.66E+08	No
100-K-86_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.78E+06	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	470	186,126	1.0	186,126	No
100-K-86_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-86_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,100	5.37E+07	1.0	5.37E+07	No
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5	7.67E+06	1.0	7.67E+06	No
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	430	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,900	5.38E+06	1.0	5.38E+06	No
100-K-86_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	58	18,834	1.0	18,834	No
100-K-86_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17	3.89E+08	1.0	3.89E+08	No
100-K-86_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,900	148,901	1.0	148,901	No
100-K-86_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	8.40E+06	1.0	8.40E+06	No
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30	2.30E+07	1.0	2.30E+07	No
100-K-86_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.38E+07	1.67E+08	1.0	1.67E+08	No
100-K-86_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,000	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	399,000	2.34E+07	1.0	2.34E+07	No
100-K-86_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	953,947	1.0	953,947	No
100-K-86_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	10,500	6.10E+06	1.0	6.10E+06	No
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43	3.22E+07	1.0	3.22E+07	No
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	84,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	160,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-86_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	58,900	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	48,800	2.66E+08	1.0	2.66E+08	No
100-K-88_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.35E+06	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	890	186,126	1.0	186,126	No
100-K-88_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	9,100	20,000[d]	1.0	20,000	No
100-K-88_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	103,000	5.37E+07	1.0	5.37E+07	No
100-K-88_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500	5.38E+06	1.0	5.38E+06	No
100-K-88_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,400	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	4,400	148,901	1.0	148,901	No
100-K-88_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,000	8.40E+06	1.0	8.40E+06	No
100-K-88_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.34E+07	1.67E+08	1.0	1.67E+08	No
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	258,000	2.34E+07	1.0	2.34E+07	No
100-K-88_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	7.2	79,331	1.0	79,331	No
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980	953,947	1.0	953,947	No
100-K-88_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,100	6.10E+06	1.0	6.10E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m\ or \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200	139,329	1.0	139,329	No
100-K-88_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	33,600	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	52,100	2.66E+08	1.0	2.66E+08	No
100-K-89, 600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	434	186,126	197	944	No
100-K-89, 600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	4,084	20,000[d]	197	20,000	No
100-K-89, 600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	80,487	5.37E+07	197	272,345	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42	7.67E+06	197	38,918	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	686	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	2,117	5.38E+06	197	27,309	No
100-K-89, 600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	88	18,834	197	96	No
100-K-89, 600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	12,216	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47	3.89E+08	197	1.97E+06	No
100-K-89, 600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,924	148,901	197	755	Yes
100-K-89, 600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,869	8.40E+06	197	42,631	No
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	2.30E+07	197	116,428	No
100-K-89, 600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	1.67E+08	197	847,427	Yes
100-K-89, 600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,445	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	406,274	2.34E+07	197	118,794	Yes
100-K-89, 600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	5.7	79,331	197	402	No
100-K-89, 600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	953,947	197	4,839	No
100-K-89, 600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,496	6.10E+06	197	30,936	No
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63	3.22E+07	197	163,158	No
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896	139,329	197	707	Yes
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	31,656	2.00E+06[e]	197	2.00E+06	No
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	59,899	2.00E+06[e]	197	2.00E+06	No
100-K-89, 600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	60,142	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	47,545	2.66E+08	197	1.35E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.09E+07	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26	6.73E+07	1.0	6.73E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	4,100	186,126	1.0	186,126	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	15,400	20,000[d]	1.0	20,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	84,500	5.37E+07	1.0	5.37E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190	7.67E+06	1.0	7.67E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	710	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,500	5.38E+06	1.0	5.38E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	18,834	1.0	18,834	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,200	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250	3.89E+08	1.0	3.89E+08	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	148,901	1.0	148,901	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500	8.40E+06	1.0	8.40E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530	2.30E+07	1.0	2.30E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.46E+07	1.67E+08	1.0	1.67E+08	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	410,000	2.34E+07	1.0	2.34E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	79,331	1.0	79,331	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	440	953,947	1.0	953,947	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	12,800	6.10E+06	1.0	6.10E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440	3.22E+07	1.0	3.22E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890	139,329	1.0	139,329	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	90,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	140,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	57,600	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000	2.66E+08	1.0	2.66E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-90_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.65E+06	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	17,000	5.37E+07	1.0	5.37E+07	No
100-K-90_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	58	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	1,400	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	1,600	148,901	1.0	148,901	No
100-K-90_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	3,600	8.40E+06	1.0	8.40E+06	No
100-K-90_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	4.25E+06	1.67E+08	1.0	1.67E+08	No
100-K-90_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,700	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	61,700	2.34E+07	1.0	2.34E+07	No
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17	79,331	1.0	79,331	No
100-K-90_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	350	953,947	1.0	953,947	No
100-K-90_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	1,900	6.10E+06	1.0	6.10E+06	No
100-K-90_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	11,000	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	14,100	2.66E+08	1.0	2.66E+08	No
100-K-91_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300	20,000[d]	1.0	20,000	No
100-K-91_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	62,100	5.37E+07	1.0	5.37E+07	No
100-K-91_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	320	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	5.38E+06	1.0	5.38E+06	No
100-K-91_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,800	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,800	148,901	1.0	148,901	No
100-K-91_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	13,500	8.40E+06	1.0	8.40E+06	No
100-K-91_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.74E+07	1.67E+08	1.0	1.67E+08	No
100-K-91_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,300	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	291,000	2.34E+07	1.0	2.34E+07	No
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	79,331	1.0	79,331	No
100-K-91_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,600	6.10E+06	1.0	6.10E+06	No
100-K-91_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	36,800	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000	2.66E+08	1.0	2.66E+08	No
100-K-92_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.86E+06	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,900	20,000[d]	1.0	20,000	No
100-K-92_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	70,900	5.37E+07	1.0	5.37E+07	No
100-K-92_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	390	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76	1.31E+06	1.0	1.31E+06	No
100-K-92_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,300	5.38E+06	1.0	5.38E+06	No
100-K-92_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	140	18,834	1.0	18,834	No
100-K-92_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	148,901	1.0	148,901	No
100-K-92_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	8.40E+06	1.0	8.40E+06	No
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216	6000[c]	1.0	6,000	No
100-K-92_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.09E+07	1.67E+08	1.0	1.67E+08	No
100-K-92_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	8,300	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	362,000	2.34E+07	1.0	2.34E+07	No
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700	953,947	1.0	953,947	No
100-K-92_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,200	6.10E+06	1.0	6.10E+06	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	14,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	29,000	2.00E+06[e]	1.0	2.00E+06	No
100-K-92_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	46,400	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,100	2.66E+08	1.0	2.66E+08	No
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19	2.62E+06	131	20,006	No
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54	7.67E+06	131	58,556	No
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59	3.89E+08	131	2.97E+06	No
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119	2.30E+07	131	175,178	No
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9	2.83E+06	131	21,576	No
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	110,036	131	840	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104	3.22E+07	131	245,487	No
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	38,541	2.00E+06[e]	131	2.00E+06	No
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,020	2.00E+06[e]	131	2.00E+06	No
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	160	2,425	No
116-K-1_Deep	non-Rad	Chromium	7440-47-3	ug/kg	14,607	--b	160	--b	--b
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5	--b	160	--b	--b
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5	--b	160	--b	--b
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0	--b	160	--b	--b
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560	6000[c]	160	6,000	No
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6	22,536	160	140	No
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	160	2,425	No
116-K-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	13,705	--b	160	--b	--b
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--b	160	--b	--b
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23	--b	160	--b	--b
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260	6000[c]	160	6,000	No
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7	22,536	160	140	No
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9	92,105	18	5,249	No
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0	57	18	3.2	No
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140	389,000	18	22,169	No
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8	--b	18	--b	--b
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69	--b	18	--b	--b
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2	--b	18	--b	--b
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6000[c]	18	6,000	Yes
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995	19,048	18	1,086	No
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72	--b	18	--b	--b
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9	--b	18	--b	--b
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7	22,536	18	1,284	No
116-K-2_Deep_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.86	--g	18	--g	--g
116-K-2_Deep_1	Rad	Uranium-235	15117-96-1	pCi/g	0.044	--g	18	--g	--g
116-K-2_Deep_1	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--g	18	--g	--g
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	18	5,249	No
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	57	18	3.2	Yes
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144	389,000	18	22,169	No
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4	--b	18	--b	--b
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82	--b	18	--b	--b
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12	--b	18	--b	--b
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688	6000[c]	18	6,000	No
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659	19,048	18	1,086	No
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24	--b	18	--b	--b
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0	--b	18	--b	--b
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7	22,536	18	1,284	No
116-K-2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.75	--g	18	--g	--g
116-K-2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--g	18	--g	--g
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0	57	18	3.2	No
116-K-2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.63	389,000	18	22,169	No
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35	--b	18	--b	--b
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670	6000[c]	18	6,000	No
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8	19,048	18	1,086	No
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19	22,536	18	1,284	No
116-K-2_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	--g	18	--g	--g
116-K-2_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.61	--g	18	--g	--g
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0	389,000	18	22,169	No
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68	--b	18	--b	--b
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17	--b	18	--b	--b
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250	6000[c]	18	6,000	No
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	18	1,086	No
116-K-2_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.15	22,536	18	1,284	No
116-K-2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--g	18	--g	--g
116-K-2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.67	--g	18	--g	--g

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
116-KE-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.22	389,000	117	3,316	No
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086	--b	117	--b	--b
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69	--b	117	--b	--b
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19	--b	117	--b	--b
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211	6000[c]	117	6,000	No
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	117	162	No
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21	22,536	117	192	No
116-KE-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	--g	117	--g	--g
116-KE-4_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.020	--g	117	--g	--g
116-KE-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.56	--g	117	--g	--g
116-KE-5_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
116-KE-5_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	100,000	5.37E+07	1.0	5.37E+07	No
116-KE-5_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	195	18,834	1.0	18,834	No
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--b	1.0	--b	--b
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038	463,391	1.0	463,391	No
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330	6000[c]	1.0	6,000	No
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300	--b	1.0	--b	--b
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102	79,331	1.0	79,331	No
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53	92,105	114	806	No
116-KW-3_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.18	389,000	114	3,404	No
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10	--b	114	--b	--b
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5	--b	114	--b	--b
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26	--b	114	--b	--b
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543	6000[c]	114	6,000	No
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92	--b	114	--b	--b
116-KW-3_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	--g	114	--g	--g
116-KW-3_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.039	--g	114	--g	--g
116-KW-3_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.65	--g	114	--g	--g
116-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600	20,000[d]	1.0	20,000	No
116-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	59,300	5.37E+07	1.0	5.37E+07	No
116-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,100	--b	1.0	--b	--b
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240	6000[c]	1.0	6,000	No
116-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,500	--b	1.0	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	61,500	5.37E+07	246	218,575	No
118-K-1_P1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	600	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	5.38E+06	246	21,917	No
118-K-1_P1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	18,834	246	77	Yes
118-K-1_P1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,000	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,300	148,901	246	606	Yes
118-K-1_P1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	17,875	8.40E+06	246	34,214	No
118-K-1_P1_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.86E+07	1.67E+08	246	680,117	Yes
118-K-1_P1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,680	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	366,000	2.34E+07	246	95,340	Yes
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588	953,947	246	3,884	No
118-K-1_P1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	11,600	6.10E+06	246	24,828	No
118-K-1_P1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	73,527	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	56,000	2.66E+08	246	1.08E+06	No
118-K-1_P1_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	8.68E+06	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	4,288	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	74,500	5.37E+07	246	218,575	No
118-K-1_P1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	388	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,600	5.38E+06	246	21,917	No
118-K-1_P1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	288	18,834	246	77	Yes
118-K-1_P1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.18	389,000	246	1,584	No
118-K-1_P1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	12,792	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,972	148,901	246	606	Yes
118-K-1_P1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	22,271	8.40E+06	246	34,214	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	2.81E+07	1.67E+08	246	680,117	Yes
118-K-1_P1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	6,680	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	389,000	2.34E+07	246	95,340	Yes
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776	953,947	246	3,884	No
118-K-1_P1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	13,200	6.10E+06	246	24,828	No
118-K-1_P1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	71,916	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	75,395	2.66E+08	246	1.08E+06	No
118-K-1_P1_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	8.17E+06	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,819	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	66,135	5.37E+07	246	218,575	No
118-K-1_P1_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	700	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,425	5.38E+06	246	21,917	No
118-K-1_P1_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	200	18,834	246	77	Yes
118-K-1_P1_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	11,165	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	148,901	246	606	Yes
118-K-1_P1_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	8.40E+06	246	34,214	No
118-K-1_P1_Shallow_3	non-Rad	Iron[f]	7439-89-6	ug/kg	3.36E+07	1.67E+08	18	9.39E+06	Yes
118-K-1_P1_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,143	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	391,000	2.34E+07	246	95,340	Yes
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588	953,947	246	3,884	No
118-K-1_P1_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	11,000	6.10E+06	246	24,828	No
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	60,700	2.66E+08	246	1.08E+06	No
118-K-1_P1_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	1.03E+07	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Antimony	7440-36-0	ug/kg	400	186,126	246	758	No
118-K-1_P1_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	5,303	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	88,103	5.37E+07	246	218,575	No
118-K-1_P1_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	725	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	2,411	5.38E+06	246	21,917	No
118-K-1_P1_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	337	18,834	246	77	Yes
118-K-1_P1_Shallow_4	Rad	Cesium-137	10045-97-3	pCi/g	0.32	389,000	246	1,584	No
118-K-1_P1_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	14,500	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,924	148,901	246	606	Yes
118-K-1_P1_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	19,645	8.40E+06	246	34,214	No
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.57E+07	1.67E+08	246	680,117	Yes
118-K-1_P1_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	6,506	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	400,414	2.34E+07	246	95,340	Yes
118-K-1_P1_Shallow_4	non-Rad	Mercury	7439-97-6	ug/kg	10	79,331	246	323	No
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746	953,947	246	3,884	No
118-K-1_P1_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	13,367	6.10E+06	246	24,828	No
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6	22,536	246	92	No
118-K-1_P1_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,733	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	56,062	2.66E+08	246	1.08E+06	No
118-K-1_P1_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	9.57E+06	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	3,708	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	72,800	5.37E+07	246	218,575	No
118-K-1_P1_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	700	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,900	5.38E+06	246	21,917	No
118-K-1_P1_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	200	18,834	246	77	Yes
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5	389,000	246	1,584	No
118-K-1_P1_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	12,800	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	10,275	148,901	246	606	Yes
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,400	8.40E+06	246	34,214	No
118-K-1_P1_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	2.87E+07	1.67E+08	246	680,117	Yes
118-K-1_P1_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	5,650	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	416,000	2.34E+07	246	95,340	Yes

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride[f]	75-09-2	ug/kg	6.0	169	19	9.1	No
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600	953,947	246	3,884	No
118-K-1_P1_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	13,483	6.10E+06	246	24,828	No
118-K-1_P1_Shallow_5	non-Rad	Nitratef	14797-55-8	ug/kg	77,441	1.28E+06	19	69,135	Yes
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073	--b	246	--b	--b
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86	22,536	246	92	No
118-K-1_P1_Shallow_5	Rad	Uranium-233/234	U-233/234	pCi/g	1.0	--g	246	--g	--g
118-K-1_P1_Shallow_5	Rad	Uranium-238	7440-61-1	pCi/g	0.79	--g	246	--g	--g
118-K-1_P1_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	74,400	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	58,098	2.66E+08	246	1.08E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.76E+06	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093	92,105	1.0	92,105	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	4,800	20,000[d]	1.0	20,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	68,600	5.37E+07	1.0	5.37E+07	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	400	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	5.38E+06	1.0	5.38E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	18,834	1.0	18,834	No
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7	389,000	1.0	389,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	10,500	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	148,901	1.0	148,901	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	21,200	8.40E+06	1.0	8.40E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	2.82E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	6,600	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	408,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0	169	1.0	169	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600	953,947	1.0	953,947	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	11,400	6.10E+06	1.0	6.10E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	18,100	1.28E+06	1.0	1.28E+06	No
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0	22,536	1.0	22,536	No
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.62	--g	1.0	--g	--g
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.046	--g	1.0	--g	--g
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	--g	1.0	--g	--g
118-K-1_P1_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	69,700	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	57,500	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Deep_2	non-Rad	Aluminum	7429-90-5	ug/kg	4.93E+06	--b	246	--b	--b
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30	92,105	246	375	No
118-K-1_P2_Deep_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,380	20,000[d]	246	20,000	No
118-K-1_P2_Deep_2	non-Rad	Barium	7440-39-3	ug/kg	50,741	5.37E+07	246	218,575	No
118-K-1_P2_Deep_2	non-Rad	Beryllium	7440-41-7	ug/kg	235	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Boron	7440-42-8	ug/kg	648	5.38E+06	246	21,917	No
118-K-1_P2_Deep_2	non-Rad	Cadmium	7440-43-9	ug/kg	119	18,834	246	77	Yes
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5	57	246	0.23	Yes
118-K-1_P2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	0.093	389,000	246	1,584	No
118-K-1_P2_Deep_2	non-Rad	Chromium	7440-47-3	ug/kg	5,327	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,270	148,901	246	606	Yes
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Copper	7440-50-8	ug/kg	14,311	8.40E+06	246	34,214	No
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Deep_2	non-Rad	Lead	7439-92-1	ug/kg	3,034	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Manganese	7439-96-5	ug/kg	289,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_2	non-Rad	Molybdenum	7439-98-7	ug/kg	307	953,947	246	3,884	No
118-K-1_P2_Deep_2	non-Rad	Nickel	7440-02-0	ug/kg	8,045	6.10E+06	246	24,828	No
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11	19,048	246	78	No
118-K-1_P2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	--g	246	--g	--g
118-K-1_P2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.64	--g	246	--g	--g
118-K-1_P2_Deep_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,754	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Zinc	7440-66-6	ug/kg	59,990	2.66E+08	246	1.08E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Deep_3	non-Rad	Aluminum	7429-90-5	ug/kg	4.75E+06	--b	246	--b	--b
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24	92,105	246	375	No
118-K-1_P2_Deep_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,740	20,000[d]	246	20,000	No
118-K-1_P2_Deep_3	non-Rad	Barium	7440-39-3	ug/kg	47,321	5.37E+07	246	218,575	No
118-K-1_P2_Deep_3	non-Rad	Beryllium	7440-41-7	ug/kg	217	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Boron	7440-42-8	ug/kg	616	5.38E+06	246	21,917	No
118-K-1_P2_Deep_3	non-Rad	Cadmium	7440-43-9	ug/kg	62	18,834	246	77	No
118-K-1_P2_Deep_3	Rad	Carbon-14[f,h]	14762-75-5	pCi/g	2.3	--b	46	--b	--b
118-K-1_P2_Deep_3	Rad	Cesium-137	10045-97-3	pCi/g	0.77	389,000	246	1,584	No
118-K-1_P2_Deep_3	non-Rad	Chromium	7440-47-3	ug/kg	4,002	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,197	148,901	246	606	Yes
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Copper	7440-50-8	ug/kg	13,000	8.40E+06	246	34,214	No
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1	--b	246	--b	--b
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Iron	7439-89-6	ug/kg	2.22E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Deep_3	non-Rad	Lead	7439-92-1	ug/kg	2,370	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Manganese	7439-96-5	ug/kg	276,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_3	non-Rad	Mercury	7439-97-6	ug/kg	9.2	79,331	246	323	No
118-K-1_P2_Deep_3	non-Rad	Molybdenum	7439-98-7	ug/kg	338	953,947	246	3,884	No
118-K-1_P2_Deep_3	non-Rad	Nickel	7440-02-0	ug/kg	7,219	6.10E+06	246	24,828	No
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38	19,048	246	78	No
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--b	246	--b	--b
118-K-1_P2_Deep_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.82	--g	246	--g	--g
118-K-1_P2_Deep_3	Rad	Uranium-238	7440-61-1	pCi/g	0.70	--g	246	--g	--g
118-K-1_P2_Deep_3	non-Rad	Vanadium	7440-62-2	ug/kg	67,900	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Zinc	7440-66-6	ug/kg	41,900	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.12E+06	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,110	20,000[d]	246	20,000	No
118-K-1_P2_Deep_4	non-Rad	Barium	7440-39-3	ug/kg	49,958	5.37E+07	246	218,575	No
118-K-1_P2_Deep_4	non-Rad	Beryllium	7440-41-7	ug/kg	246	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Boron	7440-42-8	ug/kg	1,010	5.38E+06	246	21,917	No
118-K-1_P2_Deep_4	non-Rad	Cadmium	7440-43-9	ug/kg	58	18,834	246	77	No
118-K-1_P2_Deep_4	Rad	Cesium-137	10045-97-3	pCi/g	0.50	389,000	246	1,584	No
118-K-1_P2_Deep_4	non-Rad	Chromium	7440-47-3	ug/kg	6,990	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,410	148,901	246	606	Yes
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Copper	7440-50-8	ug/kg	13,100	8.40E+06	246	34,214	No
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Iron	7439-89-6	ug/kg	2.16E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Deep_4	non-Rad	Lead	7439-92-1	ug/kg	3,380	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Manganese	7439-96-5	ug/kg	285,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100	953,947	246	3,884	No
118-K-1_P2_Deep_4	non-Rad	Nickel	7440-02-0	ug/kg	8,510	6.10E+06	246	24,828	No
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	No
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21	--b	246	--b	--b
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68	22,536	246	92	No
118-K-1_P2_Deep_4	Rad	Tritium[f]	10028-17-8	pCi/g	5.2	1,040	59	18	No
118-K-1_P2_Deep_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	--g	246	--g	--g
118-K-1_P2_Deep_4	Rad	Uranium-235	15117-96-1	pCi/g	0.041	--g	246	--g	--g
118-K-1_P2_Deep_4	Rad	Uranium-238	7440-61-1	pCi/g	0.71	--g	246	--g	--g
118-K-1_P2_Deep_4	non-Rad	Vanadium	7440-62-2	ug/kg	62,899	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Zinc	7440-66-6	ug/kg	40,545	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_5	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Antimony	7440-36-0	ug/kg	237	186,126	246	758	No
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4	14,979	246	61	No
118-K-1_P2_Deep_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,850	20,000[d]	246	20,000	No
118-K-1_P2_Deep_5	non-Rad	Barium	7440-39-3	ug/kg	72,194	5.37E+07	246	218,575	No
118-K-1_P2_Deep_5	non-Rad	Beryllium	7440-41-7	ug/kg	327	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Deep_5	non-Rad	Boron	7440-42-8	ug/kg	794	5.38E+06	246	21,917	No
118-K-1_P2_Deep_5	non-Rad	Cadmium	7440-43-9	ug/kg	106	18,834	246	77	Yes
118-K-1_P2_Deep_5	Rad	Carbon-14[f,h]	14762-75-5	pCi/g	2.7	--b	75	--b	--b
118-K-1_P2_Deep_5	Rad	Cesium-137	10045-97-3	pCi/g	0.092	389,000	246	1,584	No
118-K-1_P2_Deep_5	non-Rad	Chromium	7440-47-3	ug/kg	4,480	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,990	148,901	246	606	Yes
118-K-1_P2_Deep_5	non-Rad	Copper	7440-50-8	ug/kg	17,100	8.40E+06	246	34,214	No
118-K-1_P2_Deep_5	non-Rad	Iron[f]	7439-89-6	ug/kg	3.40E+07	1.67E+08	75	2.22E+06	Yes
118-K-1_P2_Deep_5	non-Rad	Lead	7439-92-1	ug/kg	2,370	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Manganese	7439-96-5	ug/kg	413,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553	953,947	246	3,884	No
118-K-1_P2_Deep_5	non-Rad	Nickel	7440-02-0	ug/kg	7,096	6.10E+06	246	24,828	No
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12	19,048	246	78	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,110	2.00E+06[e]	246	2.00E+06	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	53,100	2.00E+06[e]	246	2.00E+06	No
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Zinc	7440-66-6	ug/kg	55,271	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_6	non-Rad	Aluminum	7429-90-5	ug/kg	6.25E+06	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,120	20,000[d]	246	20,000	No
118-K-1_P2_Deep_6	non-Rad	Barium	7440-39-3	ug/kg	67,400	5.37E+07	246	218,575	No
118-K-1_P2_Deep_6	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Boron	7440-42-8	ug/kg	667	5.38E+06	246	21,917	No
118-K-1_P2_Deep_6	non-Rad	Cadmium	7440-43-9	ug/kg	118	18,834	246	77	Yes
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	246	0.23	Yes
118-K-1_P2_Deep_6	Rad	Cesium-137	10045-97-3	pCi/g	0.084	389,000	246	1,584	No
118-K-1_P2_Deep_6	non-Rad	Chromium	7440-47-3	ug/kg	5,380	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,200	148,901	246	606	Yes
118-K-1_P2_Deep_6	non-Rad	Copper	7440-50-8	ug/kg	17,780	8.40E+06	246	34,214	No
118-K-1_P2_Deep_6	non-Rad	Iron	7439-89-6	ug/kg	3.04E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Deep_6	non-Rad	Lead	7439-92-1	ug/kg	3,266	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Manganese	7439-96-5	ug/kg	391,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_6	non-Rad	Molybdenum	7439-98-7	ug/kg	327	953,947	246	3,884	No
118-K-1_P2_Deep_6	non-Rad	Nickel	7440-02-0	ug/kg	7,810	6.10E+06	246	24,828	No
118-K-1_P2_Deep_6	non-Rad	Vanadium	7440-62-2	ug/kg	82,600	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Zinc	7440-66-6	ug/kg	48,600	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.24E+06	--b	246	--b	--b
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8	92,105	246	375	No
118-K-1_P2_Deep_7	non-Rad	Arsenic	7440-38-2	ug/kg	1,820	20,000[d]	246	20,000	No
118-K-1_P2_Deep_7	non-Rad	Barium	7440-39-3	ug/kg	53,701	5.37E+07	246	218,575	No
118-K-1_P2_Deep_7	non-Rad	Beryllium	7440-41-7	ug/kg	248	--b	246	--b	--b
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10	389,000	246	1,584	No
118-K-1_P2_Deep_7	non-Rad	Chromium	7440-47-3	ug/kg	8,465	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Cobalt	7440-48-4	ug/kg	10,401	148,901	246	606	Yes
118-K-1_P2_Deep_7	non-Rad	Copper	7440-50-8	ug/kg	17,328	8.40E+06	246	34,214	No
118-K-1_P2_Deep_7	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Deep_7	non-Rad	Lead	7439-92-1	ug/kg	3,270	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Manganese	7439-96-5	ug/kg	360,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18	79,331	246	323	No
118-K-1_P2_Deep_7	non-Rad	Nickel	7440-02-0	ug/kg	8,156	6.10E+06	246	24,828	No
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	No
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--b	246	--b	--b
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3	22,536	246	92	No
118-K-1_P2_Deep_7	Rad	Tritium[f]	10028-17-8	pCi/g	7.5	1,040	53	20	No
118-K-1_P2_Deep_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.46	--g	246	--g	--g
118-K-1_P2_Deep_7	Rad	Uranium-238	7440-61-1	pCi/g	0.74	--g	246	--g	--g
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Zinc	7440-66-6	ug/kg	55,780	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.81E+06	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28	92,105	246	375	No
118-K-1_P2_Deep_8	non-Rad	Arsenic	7440-38-2	ug/kg	2,093	20,000[d]	246	20,000	No
118-K-1_P2_Deep_8	non-Rad	Barium	7440-39-3	ug/kg	67,500	5.37E+07	246	218,575	No
118-K-1_P2_Deep_8	non-Rad	Beryllium	7440-41-7	ug/kg	334	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Boron	7440-42-8	ug/kg	693	5.38E+06	246	21,917	No
118-K-1_P2_Deep_8	non-Rad	Cadmium	7440-43-9	ug/kg	103	18,834	246	77	Yes
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84	57	246	0.23	Yes
118-K-1_P2_Deep_8	Rad	Cesium-137	10045-97-3	pCi/g	0.29	389,000	246	1,584	No
118-K-1_P2_Deep_8	non-Rad	Chromium	7440-47-3	ug/kg	4,802	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Cobalt	7440-48-4	ug/kg	11,230	148,901	246	606	Yes
118-K-1_P2_Deep_8	non-Rad	Copper	7440-50-8	ug/kg	18,500	8.40E+06	246	34,214	No
118-K-1_P2_Deep_8	non-Rad	Iron[f]	7439-89-6	ug/kg	3.60E+07	1.67E+08	38	4.37E+06	Yes
118-K-1_P2_Deep_8	non-Rad	Lead	7439-92-1	ug/kg	3,744	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Manganese[f]	7439-96-5	ug/kg	515,801	2.34E+07	38	612,222	No
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495	953,947	246	3,884	No
118-K-1_P2_Deep_8	non-Rad	Nickel	7440-02-0	ug/kg	8,390	6.10E+06	246	24,828	No
118-K-1_P2_Deep_8	non-Rad	Selenium	7782-49-2	ug/kg	268	139,329	246	567	No
118-K-1_P2_Deep_8	Rad	Tritium[f]	10028-17-8	pCi/g	5.8	1,040	38	27	No
118-K-1_P2_Deep_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--g	246	--g	--g
118-K-1_P2_Deep_8	Rad	Uranium-238	7440-61-1	pCi/g	0.75	--g	246	--g	--g
118-K-1_P2_Deep_8	non-Rad	Vanadium	7440-62-2	ug/kg	83,544	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Zinc	7440-66-6	ug/kg	52,500	2.66E+08	246	1.08E+06	No
118-K-1_P2_Deep_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	4.30E+06	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	3,040	186,126	1.0	186,126	No
118-K-1_P2_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,910	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	41,900	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	183	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,260	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	79	18,834	1.0	18,834	No
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3	57	1.0	57	No
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11	389,000	1.0	389,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	6,030	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	5,300	148,901	1.0	148,901	No
118-K-1_P2_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	13,600	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	1.77E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	8,410	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	232,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203	79,331	1.0	79,331	No
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517	953,947	1.0	953,947	No
118-K-1_P2_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,550	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29	22,536	1.0	22,536	No
118-K-1_P2_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.54	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	44,900	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	37,200	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Deep_Focused_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.61E+06	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,130	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	56,100	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Deep_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	228	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Boron	7440-42-8	ug/kg	791	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Deep_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	69	18,834	1.0	18,834	No
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14	57	1.0	57	No
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4	389,000	1.0	389,000	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Deep_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	13,000	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,420	148,901	1.0	148,901	No
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	13,000	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Iron	7439-89-6	ug/kg	2.08E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Deep_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,870	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	256,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Deep_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	258	953,947	1.0	953,947	No
118-K-1_P2_Deep_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	11,700	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15	22,536	1.0	22,536	No
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1	1,040	1.0	1,040	No
118-K-1_P2_Deep_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.65	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.041	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.61	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	67,300	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	42,300	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Deep_Focused_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.45E+06	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_7	non-Rad	Arsenic	7440-38-2	ug/kg	2,080	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Barium	7440-39-3	ug/kg	86,500	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Deep_Focused_7	non-Rad	Beryllium	7440-41-7	ug/kg	330	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Boron	7440-42-8	ug/kg	523	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Deep_Focused_7	non-Rad	Cadmium	7440-43-9	ug/kg	78	18,834	1.0	18,834	No
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36	389,000	1.0	389,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Chromium	7440-47-3	ug/kg	6,900	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Cobalt	7440-48-4	ug/kg	6,460	148,901	1.0	148,901	No
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Copper	7440-50-8	ug/kg	17,600	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Deep_Focused_7	non-Rad	Iron	7439-89-6	ug/kg	2.98E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Deep_Focused_7	non-Rad	Lead	7439-92-1	ug/kg	3,290	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Manganese	7439-96-5	ug/kg	345,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Deep_Focused_7	non-Rad	Molybdenum	7439-98-7	ug/kg	394	953,947	1.0	953,947	No
118-K-1_P2_Deep_Focused_7	non-Rad	Nickel	7440-02-0	ug/kg	9,130	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12	22,536	1.0	22,536	No
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30	1,040	1.0	1,040	No
118-K-1_P2_Deep_Focused_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_7	Rad	Uranium-238	7440-61-1	pCi/g	0.62	--g	1.0	--g	--g
118-K-1_P2_Deep_Focused_7	non-Rad	Vanadium	7440-62-2	ug/kg	70,500	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Zinc	7440-66-6	ug/kg	47,300	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	5.76E+06	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,420	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	55,474	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	251	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,458	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	77	18,834	246	77	No
118-K-1_P2_Shallow_1	Rad	Carbon-14[f,h]	14762-75-5	pCi/g	4.5	--b	42	--b	--b
118-K-1_P2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.073	389,000	246	1,584	No
118-K-1_P2_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,290	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,406	148,901	246	606	Yes
118-K-1_P2_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	13,800	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.07E+07	1.67E+08	246	680,117	Yes

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	3,360	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	295,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	423	953,947	246	3,884	No
118-K-1_P2_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	7,140	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_1	Rad	Tritium[f]	10028-17-8	pCi/g	6.5	1,040	42	25	No
118-K-1_P2_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,364	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,300	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_10	non-Rad	Aluminum	7429-90-5	ug/kg	9.80E+06	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Arsenic	7440-38-2	ug/kg	3,370	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_10	non-Rad	Barium	7440-39-3	ug/kg	76,559	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_10	non-Rad	Beryllium	7440-41-7	ug/kg	401	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Boron	7440-42-8	ug/kg	1,659	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_10	non-Rad	Cadmium	7440-43-9	ug/kg	121	18,834	246	77	Yes
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	Yes
118-K-1_P2_Shallow_10	Rad	Cesium-137	10045-97-3	pCi/g	0.11	389,000	246	1,584	No
118-K-1_P2_Shallow_10	non-Rad	Chromium	7440-47-3	ug/kg	11,600	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	148,901	246	606	Yes
118-K-1_P2_Shallow_10	non-Rad	Copper	7440-50-8	ug/kg	22,649	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_10	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_10	non-Rad	Lead	7439-92-1	ug/kg	4,510	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Manganese	7439-96-5	ug/kg	452,510	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590	953,947	246	3,884	No
118-K-1_P2_Shallow_10	non-Rad	Nickel	7440-02-0	ug/kg	10,800	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_10	non-Rad	Nitrate	14797-55-8	ug/kg	44,542	1.28E+06	246	5,209	Yes
118-K-1_P2_Shallow_10	Rad	Uranium-233/234	U-233/234	pCi/g	0.72	--g	246	--g	--g
118-K-1_P2_Shallow_10	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--g	246	--g	--g
118-K-1_P2_Shallow_10	non-Rad	Vanadium	7440-62-2	ug/kg	83,071	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Zinc	7440-66-6	ug/kg	56,346	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11A	non-Rad	Aluminum	7429-90-5	ug/kg	7.97E+06	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Arsenic	7440-38-2	ug/kg	2,973	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11A	non-Rad	Barium	7440-39-3	ug/kg	75,402	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11A	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Boron	7440-42-8	ug/kg	1,847	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11A	non-Rad	Cadmium	7440-43-9	ug/kg	124	18,834	246	77	Yes
118-K-1_P2_Shallow_11A	Rad	Cesium-137	10045-97-3	pCi/g	0.14	389,000	246	1,584	No
118-K-1_P2_Shallow_11A	non-Rad	Chromium	7440-47-3	ug/kg	9,103	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Cobalt	7440-48-4	ug/kg	8,040	148,901	246	606	Yes
118-K-1_P2_Shallow_11A	non-Rad	Copper	7440-50-8	ug/kg	18,000	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11A	non-Rad	Iron	7439-89-6	ug/kg	2.64E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11A	non-Rad	Lead	7439-92-1	ug/kg	5,321	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Manganese	7439-96-5	ug/kg	351,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650	953,947	246	3,884	No
118-K-1_P2_Shallow_11A	non-Rad	Nickel	7440-02-0	ug/kg	10,657	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11A	non-Rad	Nitrate[f]	14797-55-8	ug/kg	121,000	1.28E+06	53	24,121	Yes
118-K-1_P2_Shallow_11A	non-Rad	Vanadium	7440-62-2	ug/kg	71,900	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Zinc	7440-66-6	ug/kg	56,000	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11B	non-Rad	Aluminum	7429-90-5	ug/kg	1.06E+07	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Arsenic	7440-38-2	ug/kg	3,228	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11B	non-Rad	Barium	7440-39-3	ug/kg	87,080	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11B	non-Rad	Beryllium	7440-41-7	ug/kg	383	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Boron	7440-42-8	ug/kg	2,290	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11B	non-Rad	Cadmium	7440-43-9	ug/kg	136	18,834	246	77	Yes
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	Yes
118-K-1_P2_Shallow_11B	Rad	Cesium-137	10045-97-3	pCi/g	0.099	389,000	246	1,584	No
118-K-1_P2_Shallow_11B	non-Rad	Chromium	7440-47-3	ug/kg	12,715	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Cobalt	7440-48-4	ug/kg	7,860	148,901	246	606	Yes
118-K-1_P2_Shallow_11B	non-Rad	Copper	7440-50-8	ug/kg	17,700	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11B	non-Rad	Iron	7439-89-6	ug/kg	2.54E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11B	non-Rad	Lead	7439-92-1	ug/kg	5,250	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_11B	non-Rad	Manganese	7439-96-5	ug/kg	404,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678	953,947	246	3,884	No
118-K-1_P2_Shallow_11B	non-Rad	Nickel	7440-02-0	ug/kg	12,000	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11B	non-Rad	Nitrate[f]	14797-55-8	ug/kg	390,793	1.28E+06	59	21,538	Yes
118-K-1_P2_Shallow_11B	non-Rad	Nitrite[f]	14797-65-0	ug/kg	1,000	93,824	59	1,579	No
118-K-1_P2_Shallow_11B	non-Rad	Vanadium	7440-62-2	ug/kg	69,400	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Zinc	7440-66-6	ug/kg	57,921	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Arsenic	7440-38-2	ug/kg	3,653	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11C	non-Rad	Barium	7440-39-3	ug/kg	96,400	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11C	non-Rad	Beryllium	7440-41-7	ug/kg	433	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Boron	7440-42-8	ug/kg	2,414	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11C	non-Rad	Cadmium	7440-43-9	ug/kg	146	18,834	246	77	Yes
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87	57	246	0.23	Yes
118-K-1_P2_Shallow_11C	Rad	Cesium-137	10045-97-3	pCi/g	0.095	389,000	246	1,584	No
118-K-1_P2_Shallow_11C	non-Rad	Chromium	7440-47-3	ug/kg	14,900	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Cobalt	7440-48-4	ug/kg	7,710	148,901	246	606	Yes
118-K-1_P2_Shallow_11C	non-Rad	Copper	7440-50-8	ug/kg	19,453	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11C	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11C	non-Rad	Lead	7439-92-1	ug/kg	5,085	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Manganese	7439-96-5	ug/kg	441,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39	79,331	246	323	No
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517	953,947	246	3,884	No
118-K-1_P2_Shallow_11C	non-Rad	Nickel	7440-02-0	ug/kg	14,400	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11C	non-Rad	Nitrate[f]	14797-55-8	ug/kg	169,367	1.28E+06	63	20,286	Yes
118-K-1_P2_Shallow_11C	non-Rad	Vanadium	7440-62-2	ug/kg	65,680	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Zinc	7440-66-6	ug/kg	49,600	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11D	non-Rad	Aluminum	7429-90-5	ug/kg	1.17E+07	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Arsenic	7440-38-2	ug/kg	3,120	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11D	non-Rad	Barium	7440-39-3	ug/kg	89,100	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11D	non-Rad	Beryllium	7440-41-7	ug/kg	395	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Boron	7440-42-8	ug/kg	2,320	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11D	non-Rad	Cadmium	7440-43-9	ug/kg	162	18,834	246	77	Yes
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_11D	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	246	1,584	No
118-K-1_P2_Shallow_11D	non-Rad	Chromium	7440-47-3	ug/kg	12,600	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Cobalt	7440-48-4	ug/kg	7,275	148,901	246	606	Yes
118-K-1_P2_Shallow_11D	non-Rad	Copper	7440-50-8	ug/kg	14,940	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11D	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11D	non-Rad	Lead	7439-92-1	ug/kg	5,756	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Manganese	7439-96-5	ug/kg	409,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563	953,947	246	3,884	No
118-K-1_P2_Shallow_11D	non-Rad	Nickel	7440-02-0	ug/kg	11,600	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11D	non-Rad	Nitrate[f]	14797-55-8	ug/kg	148,000	1.28E+06	66	19,264	Yes
118-K-1_P2_Shallow_11D	non-Rad	Vanadium	7440-62-2	ug/kg	62,900	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Zinc	7440-66-6	ug/kg	49,719	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11E	non-Rad	Aluminum	7429-90-5	ug/kg	1.12E+07	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Arsenic	7440-38-2	ug/kg	3,772	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11E	non-Rad	Barium	7440-39-3	ug/kg	94,900	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11E	non-Rad	Beryllium	7440-41-7	ug/kg	379	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Boron	7440-42-8	ug/kg	2,315	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11E	non-Rad	Cadmium	7440-43-9	ug/kg	146	18,834	246	77	Yes
118-K-1_P2_Shallow_11E	Rad	Carbon-14[f,h]	14762-75-5	pCi/g	2.1	--b	42	--b	--b
118-K-1_P2_Shallow_11E	Rad	Cesium-137	10045-97-3	pCi/g	0.14	389,000	246	1,584	No
118-K-1_P2_Shallow_11E	non-Rad	Chromium	7440-47-3	ug/kg	12,619	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	148,901	246	606	Yes
118-K-1_P2_Shallow_11E	non-Rad	Copper	7440-50-8	ug/kg	22,325	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11E	non-Rad	Iron	7439-89-6	ug/kg	2.68E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11E	non-Rad	Lead	7439-92-1	ug/kg	6,070	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_11E	non-Rad	Manganese	7439-96-5	ug/kg	431,889	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11E	non-Rad	Mercury	7439-97-6	ug/kg	9.3	79,331	246	323	No
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563	953,947	246	3,884	No
118-K-1_P2_Shallow_11E	non-Rad	Nickel	7440-02-0	ug/kg	11,100	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11E	non-Rad	Nitrate[f]	14797-55-8	ug/kg	56,000	1.28E+06	42	30,677	Yes
118-K-1_P2_Shallow_11E	non-Rad	Vanadium	7440-62-2	ug/kg	68,495	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Zinc	7440-66-6	ug/kg	54,300	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11F	non-Rad	Aluminum	7429-90-5	ug/kg	9.42E+06	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Arsenic	7440-38-2	ug/kg	3,379	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11F	non-Rad	Barium	7440-39-3	ug/kg	83,400	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11F	non-Rad	Beryllium	7440-41-7	ug/kg	316	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Boron	7440-42-8	ug/kg	2,210	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11F	non-Rad	Cadmium	7440-43-9	ug/kg	149	18,834	246	77	Yes
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	Yes
118-K-1_P2_Shallow_11F	Rad	Cesium-137	10045-97-3	pCi/g	0.22	389,000	246	1,584	No
118-K-1_P2_Shallow_11F	non-Rad	Chromium	7440-47-3	ug/kg	11,200	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Cobalt	7440-48-4	ug/kg	8,056	148,901	246	606	Yes
118-K-1_P2_Shallow_11F	non-Rad	Copper	7440-50-8	ug/kg	16,300	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11F	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11F	non-Rad	Lead	7439-92-1	ug/kg	5,510	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Manganese	7439-96-5	ug/kg	374,448	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	246	323	No
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884	953,947	246	3,884	No
118-K-1_P2_Shallow_11F	non-Rad	Nickel	7440-02-0	ug/kg	11,300	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11F	non-Rad	Nitrate[f]	14797-55-8	ug/kg	65,100	1.28E+06	101	12,722	Yes
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7	1,040	246	4.2	No
118-K-1_P2_Shallow_11F	non-Rad	Vanadium	7440-62-2	ug/kg	77,500	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Zinc	7440-66-6	ug/kg	51,655	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11G	non-Rad	Aluminum	7429-90-5	ug/kg	7.17E+06	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Arsenic	7440-38-2	ug/kg	2,690	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11G	non-Rad	Barium	7440-39-3	ug/kg	60,300	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11G	non-Rad	Beryllium	7440-41-7	ug/kg	290	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Boron	7440-42-8	ug/kg	1,340	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11G	non-Rad	Cadmium	7440-43-9	ug/kg	109	18,834	246	77	Yes
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9	57	246	0.23	Yes
118-K-1_P2_Shallow_11G	Rad	Cesium-137	10045-97-3	pCi/g	0.16	389,000	246	1,584	No
118-K-1_P2_Shallow_11G	non-Rad	Chromium	7440-47-3	ug/kg	8,117	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Cobalt	7440-48-4	ug/kg	8,360	148,901	246	606	Yes
118-K-1_P2_Shallow_11G	non-Rad	Copper	7440-50-8	ug/kg	16,781	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11G	non-Rad	Iron	7439-89-6	ug/kg	2.83E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11G	non-Rad	Lead	7439-92-1	ug/kg	4,750	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Manganese	7439-96-5	ug/kg	377,844	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582	953,947	246	3,884	No
118-K-1_P2_Shallow_11G	non-Rad	Nickel	7440-02-0	ug/kg	9,760	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11G	non-Rad	Nitrate	14797-55-8	ug/kg	42,833	1.28E+06	246	5,209	Yes
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Zinc	7440-66-6	ug/kg	55,130	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_11H	non-Rad	Aluminum	7429-90-5	ug/kg	6.51E+06	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Arsenic	7440-38-2	ug/kg	2,774	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11H	non-Rad	Barium	7440-39-3	ug/kg	55,500	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_11H	non-Rad	Beryllium	7440-41-7	ug/kg	256	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Boron	7440-42-8	ug/kg	1,258	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_11H	non-Rad	Cadmium	7440-43-9	ug/kg	103	18,834	246	77	Yes
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6	57	246	0.23	Yes
118-K-1_P2_Shallow_11H	Rad	Cesium-137	10045-97-3	pCi/g	0.27	389,000	246	1,584	No
118-K-1_P2_Shallow_11H	non-Rad	Chromium	7440-47-3	ug/kg	6,938	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Cobalt	7440-48-4	ug/kg	7,810	148,901	246	606	Yes
118-K-1_P2_Shallow_11H	non-Rad	Copper	7440-50-8	ug/kg	16,500	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_11H	non-Rad	Iron	7439-89-6	ug/kg	2.71E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_11H	non-Rad	Lead	7439-92-1	ug/kg	7,929	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Manganese	7439-96-5	ug/kg	344,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488	953,947	246	3,884	No
118-K-1_P2_Shallow_11H	non-Rad	Nickel	7440-02-0	ug/kg	9,390	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_11H	non-Rad	Nitrate	14797-55-8	ug/kg	21,000	1.28E+06	246	5,209	Yes
118-K-1_P2_Shallow_11H	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Zinc	7440-66-6	ug/kg	55,900	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,870	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	56,878	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	285	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,390	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	84	18,834	246	77	Yes
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0	57	246	0.23	Yes
118-K-1_P2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.097	389,000	246	1,584	No
118-K-1_P2_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,523	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,386	148,901	246	606	Yes
118-K-1_P2_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	13,685	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,338	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	309,188	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	375	953,947	246	3,884	No
118-K-1_P2_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,841	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.89	--g	246	--g	--g
118-K-1_P2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.66	--g	246	--g	--g
118-K-1_P2_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	54,600	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	40,000	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.96E+06	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,875	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	62,560	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	305	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,659	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	85	18,834	246	77	Yes
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,180	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	6,609	148,901	246	606	Yes
118-K-1_P2_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,900	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,339	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	316,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	444	953,947	246	3,884	No
118-K-1_P2_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	9,290	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.014	--b	246	--b	--b
118-K-1_P2_Shallow_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	--g	246	--g	--g
118-K-1_P2_Shallow_3	Rad	Uranium-238	7440-61-1	pCi/g	0.76	--g	246	--g	--g
118-K-1_P2_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	57,548	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	43,400	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.79E+06	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	3,167	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	53,000	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	277	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	1,020	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	18,834	246	77	No
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86	57	246	0.23	Yes
118-K-1_P2_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	6,920	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,321	148,901	246	606	Yes
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \; or \; \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	14,100	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	4,059	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	291,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	316	953,947	246	3,884	No
118-K-1_P2_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	7,600	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.64	--g	246	--g	--g
118-K-1_P2_Shallow_4	Rad	Uranium-235	15117-96-1	pCi/g	0.061	--g	246	--g	--g
118-K-1_P2_Shallow_4	Rad	Uranium-238	7440-61-1	pCi/g	0.60	--g	246	--g	--g
118-K-1_P2_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,252	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	41,900	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	8.45E+06	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	2,930	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	73,049	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	346	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,610	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	93	18,834	246	77	Yes
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79	57	246	0.23	Yes
118-K-1_P2_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	0.23	389,000	246	1,584	No
118-K-1_P2_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	7,592	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,489	148,901	246	606	Yes
118-K-1_P2_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,300	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	3.01E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	3,670	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	395,939	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58	79,331	246	323	No
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550	953,947	246	3,884	No
118-K-1_P2_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	8,469	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	28,400	1.28E+06	246	5,209	Yes
118-K-1_P2_Shallow_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,100	2.00E+06[e]	246	2.00E+06	No
118-K-1_P2_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	81,200	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	51,700	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_6	non-Rad	Aluminum	7429-90-5	ug/kg	7.45E+06	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,540	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_6	non-Rad	Barium	7440-39-3	ug/kg	114,051	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_6	non-Rad	Beryllium	7440-41-7	ug/kg	345	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Boron	7440-42-8	ug/kg	957	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_6	non-Rad	Cadmium	7440-43-9	ug/kg	91	18,834	246	77	Yes
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81	57	246	0.23	Yes
118-K-1_P2_Shallow_6	Rad	Cesium-137	10045-97-3	pCi/g	0.10	389,000	246	1,584	No
118-K-1_P2_Shallow_6	non-Rad	Chromium	7440-47-3	ug/kg	6,250	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,456	148,901	246	606	Yes
118-K-1_P2_Shallow_6	non-Rad	Copper	7440-50-8	ug/kg	18,432	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Iron	7439-89-6	ug/kg	2.95E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_6	non-Rad	Lead	7439-92-1	ug/kg	4,466	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Manganese	7439-96-5	ug/kg	392,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_6	non-Rad	Molybdenum	7439-98-7	ug/kg	390	953,947	246	3,884	No
118-K-1_P2_Shallow_6	non-Rad	Nickel	7440-02-0	ug/kg	8,810	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_6	Rad	Tritium[f]	10028-17-8	pCi/g	8.3	1,040	89	12	No
118-K-1_P2_Shallow_6	non-Rad	Vanadium	7440-62-2	ug/kg	79,215	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Zinc	7440-66-6	ug/kg	56,100	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_7	non-Rad	Aluminum	7429-90-5	ug/kg	9.46E+06	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Antimony[f]	7440-36-0	ug/kg	16,300	186,126	72	2,595	Yes
118-K-1_P2_Shallow_7	non-Rad	Arsenic	7440-38-2	ug/kg	3,546	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_7	non-Rad	Barium	7440-39-3	ug/kg	73,740	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_7	non-Rad	Beryllium	7440-41-7	ug/kg	365	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Boron	7440-42-8	ug/kg	1,840	5.38E+06	246	21,917	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_7	Rad	Cesium-137	10045-97-3	pCi/g	0.26	389,000	246	1,584	No
118-K-1_P2_Shallow_7	non-Rad	Chromium	7440-47-3	ug/kg	10,300	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	148,901	246	606	Yes
118-K-1_P2_Shallow_7	non-Rad	Copper	7440-50-8	ug/kg	22,500	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76	1.43E+06	246	5,826	No
118-K-1_P2_Shallow_7	non-Rad	Iron	7439-89-6	ug/kg	2.91E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Manganese	7439-96-5	ug/kg	437,260	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129	79,331	246	323	No
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650	953,947	246	3,884	No
118-K-1_P2_Shallow_7	non-Rad	Nickel	7440-02-0	ug/kg	11,900	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.69	--g	246	--g	--g
118-K-1_P2_Shallow_7	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--g	246	--g	--g
118-K-1_P2_Shallow_7	non-Rad	Vanadium	7440-62-2	ug/kg	79,100	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Zinc	7440-66-6	ug/kg	77,182	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_8	non-Rad	Aluminum	7429-90-5	ug/kg	7.63E+06	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Arsenic	7440-38-2	ug/kg	3,422	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_8	non-Rad	Barium	7440-39-3	ug/kg	78,248	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_8	non-Rad	Beryllium	7440-41-7	ug/kg	377	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Boron	7440-42-8	ug/kg	1,020	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_8	non-Rad	Cadmium	7440-43-9	ug/kg	116	18,834	246	77	Yes
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	Yes
118-K-1_P2_Shallow_8	Rad	Cesium-137	10045-97-3	pCi/g	0.15	389,000	246	1,584	No
118-K-1_P2_Shallow_8	non-Rad	Chromium	7440-47-3	ug/kg	8,115	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Cobalt	7440-48-4	ug/kg	13,365	148,901	246	606	Yes
118-K-1_P2_Shallow_8	non-Rad	Copper	7440-50-8	ug/kg	20,000	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_8	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_8	non-Rad	Lead	7439-92-1	ug/kg	6,672	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Manganese	7439-96-5	ug/kg	453,000	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_8	non-Rad	Molybdenum	7439-98-7	ug/kg	435	953,947	246	3,884	No
118-K-1_P2_Shallow_8	non-Rad	Nickel	7440-02-0	ug/kg	11,306	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4	1,040	246	4.2	No
118-K-1_P2_Shallow_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.76	--g	246	--g	--g
118-K-1_P2_Shallow_8	Rad	Uranium-238	7440-61-1	pCi/g	0.49	--g	246	--g	--g
118-K-1_P2_Shallow_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,026	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Zinc	7440-66-6	ug/kg	58,300	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_9	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Arsenic	7440-38-2	ug/kg	3,100	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_9	non-Rad	Barium	7440-39-3	ug/kg	84,500	5.37E+07	246	218,575	No
118-K-1_P2_Shallow_9	non-Rad	Beryllium	7440-41-7	ug/kg	369	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Boron	7440-42-8	ug/kg	2,630	5.38E+06	246	21,917	No
118-K-1_P2_Shallow_9	non-Rad	Cadmium	7440-43-9	ug/kg	156	18,834	246	77	Yes
118-K-1_P2_Shallow_9	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	246	1,584	No
118-K-1_P2_Shallow_9	non-Rad	Chromium	7440-47-3	ug/kg	13,000	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Cobalt	7440-48-4	ug/kg	8,484	148,901	246	606	Yes
118-K-1_P2_Shallow_9	non-Rad	Copper	7440-50-8	ug/kg	17,100	8.40E+06	246	34,214	No
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	1.67E+08	246	680,117	Yes
118-K-1_P2_Shallow_9	non-Rad	Lead	7439-92-1	ug/kg	5,349	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Manganese	7439-96-5	ug/kg	400,862	2.34E+07	246	95,340	Yes
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21	79,331	246	323	No
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641	953,947	246	3,884	No
118-K-1_P2_Shallow_9	non-Rad	Nickel	7440-02-0	ug/kg	11,733	6.10E+06	246	24,828	No
118-K-1_P2_Shallow_9	non-Rad	Nitrate[f]	14797-55-8	ug/kg	231,145	1.28E+06	22	58,249	Yes
118-K-1_P2_Shallow_9	non-Rad	Nitrite[f]	14797-65-0	ug/kg	1,000	93,824	22	4,272	No
118-K-1_P2_Shallow_9	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	--g	246	--g	--g
118-K-1_P2_Shallow_9	Rad	Uranium-238	7440-61-1	pCi/g	0.91	--g	246	--g	--g
118-K-1_P2_Shallow_9	non-Rad	Vanadium	7440-62-2	ug/kg	69,800	--b	246	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_9	non-Rad	Zinc	7440-66-6	ug/kg	55,577	2.66E+08	246	1.08E+06	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.04E+06	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	369	186,126	1.0	186,126	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	3,980	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	80,500	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	318	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Boron	7440-42-8	ug/kg	853	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	116	18,834	1.0	18,834	No
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	17,400	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,820	148,901	1.0	148,901	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,400	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	2,690	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	464,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481	953,947	1.0	953,947	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.78	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	53,000	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Aluminum	7429-90-5	ug/kg	4.41E+06	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,560	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	52,000	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	285	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	73	18,834	1.0	18,834	No
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1	57	1.0	57	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,390	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,690	148,901	1.0	148,901	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Iron	7439-89-6	ug/kg	2.74E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,020	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	316,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	261	953,947	1.0	953,947	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,640	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.33	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.37	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	44,300	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Aluminum	7429-90-5	ug/kg	5.27E+06	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,600	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	55,700	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	196	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Boron	7440-42-8	ug/kg	483	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	66	18,834	1.0	18,834	No
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	1.0	57	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,900	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,390	148,901	1.0	148,901	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	14,200	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	1,630	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	293,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	328	953,947	1.0	953,947	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	5,780	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-233/234	U-233/234	pCi/g	0.37	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-235	15117-96-1	pCi/g	0.026	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-238	7440-61-1	pCi/g	0.42	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	70,300	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	42,300	2.66E+08	1.0	2.66E+08	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_Focused_6	non-Rad	Aluminum	7429-90-5	ug/kg	9.10E+06	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	3,740	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	86,200	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	302	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Boron	7440-42-8	ug/kg	1,390	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Shallow_Focused_6	Rad	Cesium-137	10045-97-3	pCi/g	0.63	389,000	1.0	389,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	6,710	148,901	1.0	148,901	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	17,200	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Iron	7439-89-6	ug/kg	1.80E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	4,810	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	315,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12	1,040	1.0	1,040	No
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-233/234	U-233/234	pCi/g	0.55	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-238	7440-61-1	pCi/g	0.82	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	43,900	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	40,300	2.66E+08	1.0	2.66E+08	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.68E+06	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Arsenic	7440-38-2	ug/kg	4,160	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Barium	7440-39-3	ug/kg	67,700	5.37E+07	1.0	5.37E+07	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Beryllium	7440-41-7	ug/kg	280	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Boron	7440-42-8	ug/kg	796	5.38E+06	1.0	5.38E+06	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Cadmium	7440-43-9	ug/kg	102	18,834	1.0	18,834	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Chromium	7440-47-3	ug/kg	7,040	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Cobalt	7440-48-4	ug/kg	7,220	148,901	1.0	148,901	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Copper	7440-50-8	ug/kg	13,400	8.40E+06	1.0	8.40E+06	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Iron	7439-89-6	ug/kg	2.73E+07	1.67E+08	1.0	1.67E+08	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Lead	7439-92-1	ug/kg	3,480	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Manganese	7439-96-5	ug/kg	369,000	2.34E+07	1.0	2.34E+07	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Molybdenum	7439-98-7	ug/kg	428	953,947	1.0	953,947	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Nickel	7440-02-0	ug/kg	8,980	6.10E+06	1.0	6.10E+06	No
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.35	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-238	7440-61-1	pCi/g	0.40	--g	1.0	--g	--g
118-K-1_P2_Shallow_Focused_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,100	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Zinc	7440-66-6	ug/kg	48,300	2.66E+08	1.0	2.66E+08	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,570	20,000[d]	6.2	20,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,251	5.37E+07	6.2	8.69E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	449	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,273	5.38E+06	6.2	871,698	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,530	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,072	148,901	6.2	24,110	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,296	8.40E+06	6.2	1.36E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Fluoride	16984-48-8	ug/kg	1,910	3.89E+08	6.2	6.30E+07	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108	6000[c]	6.2	6,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,937	2.34E+07	6.2	3.79E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559	953,947	6.2	154,465	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,189	6.10E+06	6.2	987,480	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	10,319	1.28E+06	6.2	207,166	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120	139,329	6.2	22,560	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645	2.07E+08	6.2	3.35E+07	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568	3.89E+08	6.2	6.30E+07	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	561	2.14E+06	6.2	346,399	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,017	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	55,448	2.66E+08	6.2	4.31E+07	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	130	186,126	1.0	186,126	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	101,000	5.37E+07	1.0	5.37E+07	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m\ or \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	420	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100	5.38E+06	1.0	5.38E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	87	18,834	1.0	18,834	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	6,400	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,600	148,901	1.0	148,901	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900	8.40E+06	1.0	8.40E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	3,200	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	316,000	2.34E+07	1.0	2.34E+07	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610	953,947	1.0	953,947	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	8,700	6.10E+06	1.0	6.10E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000	139,329	1.0	139,329	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	82	385,420	1.0	385,420	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900	2.07E+08	1.0	2.07E+08	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600	3.89E+08	1.0	3.89E+08	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	850	2.14E+06	1.0	2.14E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	62,600	2.66E+08	1.0	2.66E+08	No
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670	6.73E+07	1.0	6.73E+07	No
128-K-1_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
128-K-1_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	71,500	5.37E+07	1.0	5.37E+07	No
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300	7.67E+06	1.0	7.67E+06	No
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870	1.31E+06	1.0	1.31E+06	No
128-K-1_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	350	18,834	1.0	18,834	No
128-K-1_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,500	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000	3.89E+08	1.0	3.89E+08	No
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000	2.30E+07	1.0	2.30E+07	No
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480	6000[c]	1.0	6,000	No
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30	79,331	1.0	79,331	No
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000	3.22E+07	1.0	3.22E+07	No
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800	139,329	1.0	139,329	No
128-K-1_Shallow_Focused	non-Rad	Total petroleum hydrocarbons	TPH	ug/kg	14,400	2.00E+06[e]	1.0	2.00E+06	No
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18	2.62E+06	74	35,539	No
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10	206,903	74	2,805	No
128-K-2_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.07E+06	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11	6.73E+07	74	912,373	No
128-K-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	500	186,126	74	2,524	No
128-K-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,263	20,000[d]	74	20,000	No
128-K-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	68,960	5.37E+07	74	727,925	No
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27	7.67E+06	74	104,020	No
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	519	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,928	5.38E+06	74	72,991	No
128-K-2_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	153	18,834	74	255	No
128-K-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,922	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14	3.89E+08	74	5.27E+06	No
128-K-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,021	148,901	74	2,019	Yes
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	8.40E+06	74	113,943	No
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41	2.30E+07	74	311,190	No
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14	2.83E+06	74	38,328	No
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18	--b	74	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
128-K-2_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	1.67E+08	74	2.27E+06	Yes
128-K-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	9,642	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	324,704	2.34E+07	74	317,514	Yes
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	74	1,076	No
128-K-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	250	953,947	74	12,934	No
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	110,036	74	1,492	No
128-K-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,030	6.10E+06	74	82,686	No
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	3.22E+07	74	436,089	No
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973	139,329	74	1,889	No
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	3,425	2.00E+06[e]	74	2.00E+06	No
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	4,568	2.00E+06[e]	74	2.00E+06	No
128-K-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,084	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,542	2.66E+08	74	3.60E+06	No
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10	206,903	1.0	206,903	No
128-K-2_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.26E+06	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	410	186,126	1.0	186,126	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4	14,979	1.0	14,979	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,300	20,000[d]	1.0	20,000	No
128-K-2_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,000	5.37E+07	1.0	5.37E+07	No
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10	7.67E+06	1.0	7.67E+06	No
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	540	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	3,300	5.38E+06	1.0	5.38E+06	No
128-K-2_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	190	18,834	1.0	18,834	No
128-K-2_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	14,600	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12	3.89E+08	1.0	3.89E+08	No
128-K-2_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,400	148,901	1.0	148,901	No
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600	8.40E+06	1.0	8.40E+06	No
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29	2.30E+07	1.0	2.30E+07	No
128-K-2_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	1.67E+08	1.0	1.67E+08	No
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	332,000	2.34E+07	1.0	2.34E+07	No
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	79,331	1.0	79,331	No
128-K-2_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	953,947	1.0	953,947	No
128-K-2_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,300	6.10E+06	1.0	6.10E+06	No
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18	3.22E+07	1.0	3.22E+07	No
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100	139,329	1.0	139,329	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	560,000	2.00E+06[e]	1.0	2.00E+06	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	1.20E+06	2.00E+06[e]	1.0	2.00E+06	No
128-K-2_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	45,300	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000	2.66E+08	1.0	2.66E+08	No
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040	92,105	4.9	18,779	No
132-KE-1_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,770	20,000[d]	4.9	20,000	No
132-KE-1_Shallow	non-Rad	Barium	7440-39-3	ug/kg	60,800	5.37E+07	4.9	1.09E+07	No
132-KE-1_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	301	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	18,834	4.9	3,840	No
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	57	4.9	12	Yes
132-KE-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.42	389,000	4.9	79,310	No
132-KE-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	6,770	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,270	148,901	4.9	30,358	No
132-KE-1_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,500	8.40E+06	4.9	1.71E+06	No
132-KE-1_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,340	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	308,000	2.34E+07	4.9	4.77E+06	No
132-KE-1_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	397	953,947	4.9	194,492	No
132-KE-1_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,340	6.10E+06	4.9	1.24E+06	No
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041	--b	4.9	--b	--b

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m\ or \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
132-KE-1_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	267	139,329	4.9	28,407	No
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500	2.07E+08	4.9	4.21E+07	No
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494	3.89E+08	4.9	7.93E+07	No
132-KE-1_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	467	2.14E+06	4.9	436,163	No
132-KE-1_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--g	4.9	--g	--g
132-KE-1_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--g	4.9	--g	--g
132-KE-1_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--g	4.9	--g	--g
132-KE-1_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	56,900	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,800	2.66E+08	4.9	5.42E+07	No
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	14,979	8.7	1,719	No
1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,490	20,000[d]	8.7	20,000	No
1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	78,400	5.37E+07	8.7	6.16E+06	No
1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	384	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,630	5.38E+06	8.7	617,780	No
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,300	148,901	8.7	17,087	No
1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,800	8.40E+06	8.7	964,391	No
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	2.34E+07	8.7	2.69E+06	No
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59	79,331	8.7	9,104	No
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550	953,947	8.7	109,471	No
1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	18,800	6.10E+06	8.7	699,836	No
1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,590	1.28E+06	8.7	146,821	No
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886	139,329	8.7	15,989	No
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500	2.07E+08	8.7	2.37E+07	No
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549	3.89E+08	8.7	4.46E+07	No
1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	668	2.14E+06	8.7	245,496	No
1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	74,600	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900	2.66E+08	8.7	3.05E+07	No
600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	9.29E+06	--b	197	--b	--b
600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	520	186,126	197	944	No
600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	10,358	20,000[d]	197	20,000	No
600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,216	5.37E+07	197	272,345	No
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67	--b	197	--b	--b
600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	653	--b	197	--b	--b
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103	1.31E+06	197	6,652	No
600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,759	5.38E+06	197	27,309	No
600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	105	18,834	197	96	Yes
600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,813	--b	197	--b	--b
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46	3.89E+08	197	1.97E+06	No
600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,224	148,901	197	755	Yes
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	8.40E+06	197	42,631	No
600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.30E+07	1.67E+08	197	847,427	Yes
600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,752	--b	197	--b	--b
600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	348,791	2.34E+07	197	118,794	Yes
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	197	402	No
600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	274	953,947	197	4,839	No
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	6.10E+06	197	30,936	Yes
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87	3.22E+07	197	163,158	No
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985	139,329	197	707	Yes
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	22,077	2.00E+06[e]	197	2.00E+06	No
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	31,433	2.00E+06[e]	197	2.00E+06	No
600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,344	--b	197	--b	--b
600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,782	2.66E+08	197	1.35E+06	No
600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.83E+06	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	450	186,126	1.0	186,126	No
600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,800	20,000[d]	1.0	20,000	No
600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	68,500	5.37E+07	1.0	5.37E+07	No
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72	7.67E+06	1.0	7.67E+06	No

Table 7-1. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Groundwater?
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	620	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120	1.31E+06	1.0	1.31E+06	No
600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	5.38E+06	1.0	5.38E+06	No
600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	160	18,834	1.0	18,834	No
600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,600	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90	3.89E+08	1.0	3.89E+08	No
600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,900	148,901	1.0	148,901	No
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900	8.40E+06	1.0	8.40E+06	No
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240	1.43E+06	1.0	1.43E+06	No
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100	2.30E+07	1.0	2.30E+07	No
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.43E+07	1.67E+08	1.0	1.67E+08	No
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	347,000	2.34E+07	1.0	2.34E+07	No
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	79,331	1.0	79,331	No
600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	290	953,947	1.0	953,947	No
600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	6.10E+06	1.0	6.10E+06	No
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96	3.22E+07	1.0	3.22E+07	No
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940	139,329	1.0	139,329	No
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180	385,420	1.0	385,420	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	20,000	2.00E+06[e]	1.0	2.00E+06	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,000	2.00E+06[e]	1.0	2.00E+06	No
600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	56,200	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	67,700	2.66E+08	1.0	2.66E+08	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

b. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

c. The soil screening level for hexavalent chromium is set to a maximum value of 6,000 µg/kg because the kd value used in the model was derived from experiments with soil concentration less than 6,000 µg/kg.

d. The Hanford Site cleanup value for arsenic is 20 mg/kg based on the letter Issues Associated with Establishing Soil Cleanup Levels for Arsenic published by the Department of Ecology Toxics Cleanup Program on June 11, 2013. This letter indicates that the Method A soil cleanup level of 20 mg/kg can be used to define natural background levels when developing Method B soil cleanup levels for the Hanford Site. While the measured 90th percentile background concentration of arsenic in Hanford soils is about 6.47 mg/kg, the value of 20 mg/kg is used as the applicable cleanup level.

e. The soil screening level for Total Petroleum Hydrocarbons is a default screening level obtained from WAC 173-340-900, Table 747-5, "Residual Saturation Screening Levels for TPH."

f. Waste site dimension was measured using the maximum flowline length of respective area delineated in Figure 7 of CVP-2013-00002 Rev.1

g. Uranium isotopes are accounted for by converting from activity-based (pCi/g) to mass-based (µg/kg) concentrations and then summing to provide a mass-based total uranium exposure point concentration (identified as Total_U_Isotopes), as described in ECF-

-- = Not applicable or no value

ECF-Hanford-13-0012, Rev. 0, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report.*

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-102_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	595	--b	15	No	No
100-K-102_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,654	20,000[d]	15	20,000	No
100-K-102_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	71,680	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	346	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,027	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	123	2,712	15	186	No
100-K-102_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,143	--e	15	No	No
100-K-102_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	11,613	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	18,990	129,998	15	8,900	Yes
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149	6,000[f]	15	6,000	No
100-K-102_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,047	--e	15	--e	--e
100-K-102_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	396,776	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	476	15	33	Yes
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,594	3.17E+06	15	217,108	No
100-K-102_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	8,930	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	13,933	15	954	Yes
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	588	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	81,574	--b	15	--b	--b
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913	5.04E+06	15	345,085	No
100-K-102_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	445	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,032	20,000[d]	15	20,000	No
100-K-102_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	62,641	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,082	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	2,712	15	186	Yes
100-K-102_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,303	--e	15	--e	--e
100-K-102_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,123	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,143	129,998	15	8,900	Yes
100-K-102_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	7,073	--e	15	--e	--e
100-K-102_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	324,038	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	476	15	33	Yes
100-K-102_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	446	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,336	3.17E+06	15	217,108	No
100-K-102_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	10,405	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	331	13,933	15	954	No
100-K-102_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	31	12,526	15	858	No
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	699	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,497	--b	15	--b	--b
100-K-102_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	42,202	5.04E+06	15	345,085	No
100-K-102_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	463	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,510	20,000[d]	1.0	20,000	No
100-K-102_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	99,200	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	440	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,500	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	183	2,712	1.0	2,712	No
100-K-102_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--e	1.0	--e	--e
100-K-102_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	13,800	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	20,000	129,998	1.0	129,998	No
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	9,040	--e	1.0	--e	--e
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,400	3.17E+06	1.0	3.17E+06	No
100-K-102_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	7,700	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	654	13,933	1.0	13,933	No
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	676	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700	--b	1.0	--b	--b
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400	5.04E+06	1.0	5.04E+06	No
100-K-105_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	7.80E+06	--e	11	--e	--e
100-K-105_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	130	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,500	20,000[d]	11	20,000	No
100-K-105_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	64,000	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	340	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	87	2,712	11	256	No
100-K-105_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,900	--e	11	--e	--e
100-K-105_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,600	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	14,000	129,998	11	12,259	Yes
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290	6,000[f]	11	6,000	No
100-K-105_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.49E+07	11	1.41E+06	Yes
100-K-105_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,600	--e	11	--e	--e
100-K-105_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	320,000	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	310	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,500	3.17E+06	11	299,043	No
100-K-105_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	5,750	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	500	13,933	11	1,314	No
100-K-105_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	21	12,526	11	1,181	No
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000	--b	11	--b	--b
100-K-105_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.17	22,536	11	2,125	No
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	360	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	46,000	--b	11	--b	--b
100-K-105_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	41,000	5.04E+06	11	475,317	No
100-K-105_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.30E+06	--e	11	--e	--e
100-K-105_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	96	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,200	20,000[d]	11	20,000	No
100-K-105_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	52,000	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	270	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	55	2,712	11	256	No
100-K-105_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	7,300	--e	11	--e	--e
100-K-105_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,200	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	12,000	129,998	11	12,259	No
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6,000[f]	11	6,000	No
100-K-105_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.49E+07	11	1.41E+06	Yes
100-K-105_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,700	--e	11	--e	--e
100-K-105_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	270,000	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	300	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,200	3.17E+06	11	299,043	No
100-K-105_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	510	13,933	11	1,314	No
100-K-105_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	18	12,526	11	1,181	No
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	320	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	--b	11	--b	--b
100-K-105_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	41,000	5.04E+06	11	475,317	No
100-K-105_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.70E+06	--e	11	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-105_Shallow_3	non-Rad	Antimony	7440-36-0	ug/kg	120	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,500	20,000[d]	11	20,000	No
100-K-105_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	60,000	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	310	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	50	2,712	11	256	No
100-K-105_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,200	--e	11	--e	--e
100-K-105_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,500	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,000	129,998	11	12,259	Yes
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160	6,000[f]	11	6,000	No
100-K-105_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	1.49E+07	11	1.41E+06	Yes
100-K-105_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,300	--e	11	--e	--e
100-K-105_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Mercury	7439-97-6	ug/kg	8.8	476	11	45	No
100-K-105_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	290	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	10,000	3.17E+06	11	299,043	No
100-K-105_Shallow_3	non-Rad	Selenium	7782-49-2	ug/kg	540	13,933	11	1,314	No
100-K-105_Shallow_3	non-Rad	Silver	7440-22-4	ug/kg	25	12,526	11	1,181	No
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Uranium	7440-61-1	ug/kg	930	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	43,000	--b	11	--b	--b
100-K-105_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	54,000	5.04E+06	11	475,317	No
100-K-106_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	992	20,000[d]	4.8	20,000	No
100-K-106_Shallow	non-Rad	Barium	7440-39-3	ug/kg	42,600	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	37	2,712	4.8	567	No
100-K-106_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	2,790	--e	4.8	--e	--e
100-K-106_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	6,380	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Copper	7440-50-8	ug/kg	11,200	129,998	4.8	27,172	No
100-K-106_Shallow	non-Rad	Lead	7439-92-1	ug/kg	1,990	--e	4.8	--e	--e
100-K-106_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	203,000	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	228	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,250	3.17E+06	4.8	662,858	No
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	292	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	33,000	--b	4.8	--b	--b
100-K-106_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	33,200	5.04E+06	4.8	1.05E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,320	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	55,600	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	211	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	59	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,510	--e	1.0	--e	--e
100-K-106_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,240	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,100	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,410	--e	1.0	--e	--e
100-K-106_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	250,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	265	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,170	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	13,100	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	367	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	43,500	--b	1.0	--b	--b
100-K-106_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	34,600	5.04E+06	1.0	5.04E+06	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-106_Shallow_Focused_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,480	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	58,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	231	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	52	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	5,370	--e	1.0	--e	--e
100-K-106_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	10,200	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,000	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,450	--e	1.0	--e	--e
100-K-106_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	399,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	7,310	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,150	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	6,500	2.00E+06	1.0	2.00E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	386	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	40,500	5.04E+06	1.0	5.04E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,750	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	59,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	341	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	70	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	5,710	--e	1.0	--e	--e
100-K-106_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,780	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,340	--e	1.0	--e	--e
100-K-106_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	326,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	7,950	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Nitrate	14797-55-8	ug/kg	20,900	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	34	12,526	1.0	12,526	No
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	46,000	2.00E+06	1.0	2.00E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	470	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	54,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	43,800	5.04E+06	1.0	5.04E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,010	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	49,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	187	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,280	--e	1.0	--e	--e
100-K-106_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,950	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	1,830	--e	1.0	--e	--e
100-K-106_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	262,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	303	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,250	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	356	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	40,700	--b	1.0	--b	--b
100-K-106_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	35,000	5.04E+06	1.0	5.04E+06	No
100-K-106_Shallow_Focused_5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,730	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	53,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	319	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-106_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	52	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,680	--e	1.0	--e	--e
100-K-106_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,960	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	15,000	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	2,760	--e	1.0	--e	--e
100-K-106_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	261,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	372	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	7,110	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_5	non-Rad	Selenium	7782-49-2	ug/kg	275	13,933	1.0	13,933	No
100-K-106_Shallow_Focused_5	non-Rad	Silver	7440-22-4	ug/kg	33	12,526	1.0	12,526	No
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Uranium	7440-61-1	ug/kg	488	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	58,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	39,800	5.04E+06	1.0	5.04E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-106_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	57,200	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	329	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Cadmium	7440-43-9	ug/kg	41	2,712	1.0	2,712	No
100-K-106_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	6,070	--e	1.0	--e	--e
100-K-106_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	9,640	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	16,200	129,998	1.0	129,998	No
100-K-106_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	3,380	--e	1.0	--e	--e
100-K-106_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	330,000	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Molybdenum	7439-98-7	ug/kg	298	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	9,740	3.17E+06	1.0	3.17E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Nitrate	14797-55-8	ug/kg	10,400	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Selenium	7782-49-2	ug/kg	253	13,933	1.0	13,933	No
100-K-106_Shallow_Focused_6	non-Rad	Silver	7440-22-4	ug/kg	25	12,526	1.0	12,526	No
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	50,000	2.00E+06	1.0	2.00E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Uranium	7440-61-1	ug/kg	478	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	44,300	--b	1.0	--b	--b
100-K-106_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	38,600	5.04E+06	1.0	5.04E+06	No
100-K-109_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,190	20,000[d]	21	20,000	No
100-K-109_Shallow	non-Rad	Barium	7440-39-3	ug/kg	56,735	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	296	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Boron	7440-42-8	ug/kg	898	--b	21	--b	--b
100-K-109_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.022	389,000	21	18,156	No
100-K-109_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,903	--e	21	--e	--e
100-K-109_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,090	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,732	129,998	21	6,068	Yes
100-K-109_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,032	--e	21	--e	--e
100-K-109_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	331,189	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76	476	21	22	Yes
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,689	3.17E+06	21	148,014	No
100-K-109_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	7,823	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	13,933	21	650	Yes
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	456	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	57,582	--b	21	--b	--b
100-K-109_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	43,302	5.04E+06	21	235,263	No
100-K-109_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,900	20,000[d]	1.0	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-109_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	60,200	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	300	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	81	2,712	1.0	2,712	No
100-K-109_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,900	--e	1.0	--e	--e
100-K-109_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,100	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	129,998	1.0	129,998	No
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167	6,000[f]	1.0	6,000	No
100-K-109_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,200	--e	1.0	--e	--e
100-K-109_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	359,000	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14	476	1.0	476	No
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,500	3.17E+06	1.0	3.17E+06	No
100-K-109_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	5,050	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900	13,933	1.0	13,933	No
100-K-109_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	47	12,526	1.0	12,526	No
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	460	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	75,500	--b	1.0	--b	--b
100-K-109_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	56,100	5.04E+06	1.0	5.04E+06	No
100-K-110_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	7.00E+06	--e	134	--e	--e
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	8,694	20,000[d]	134	20,000	No
100-K-110_Shallow	non-Rad	Barium	7440-39-3	ug/kg	73,627	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	326	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	118	2,712	134	20	Yes
100-K-110_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.094	389,000	134	2,897	No
100-K-110_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,294	--e	134	--e	--e
100-K-110_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,749	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,605	129,998	134	968	Yes
100-K-110_Shallow	Rad	Europium-155	14391-16-3	pCi/g	0.034	--e	134	--e	--e
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199	6,000[f]	134	6,000	No
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	1.49E+07	134	111,089	Yes
100-K-110_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,648	--e	134	--e	--e
100-K-110_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	412,928	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	476	134	3.5	Yes
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,586	3.17E+06	134	23,619	No
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	13,933	134	104	Yes
100-K-110_Shallow	non-Rad	Silver	7440-22-4	ug/kg	38	12,526	134	93	No
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Thallium	7440-28-0	ug/kg	142	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,610	--b	134	--b	--b
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	5.04E+06	134	37,541	Yes
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870	2,712	1.0	2,712	No
100-K-110_Shallow_focused	non-Rad	Chromium	7440-47-3	ug/kg	8,640	--e	1.0	--e	--e
100-K-110_Shallow_focused	non-Rad	Lead	7439-92-1	ug/kg	5,630	--e	1.0	--e	--e
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110	476	1.0	476	No
100-K-14, 126-KE-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,152	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,120	20,000[d]	11	20,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,924	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,578	--e	11	--e	--e
100-K-14, 126-KE-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,836	--b	11	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-14, 126-KE-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,884	129,998	11	12,031	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,373	--e	11	--e	--e
100-K-14, 126-KE-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	398,037	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	476	11	44	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,912	3.17E+06	11	293,494	No
100-K-14, 126-KE-2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	2,636	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141	13,933	11	1,289	No
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958	12,526	11	1,159	No
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067	--b	11	--b	--b
100-K-14, 126-KE-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,730	5.04E+06	11	466,498	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,335	20,000[d]	7.0	20,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,392	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	414	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,701	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	93	2,712	7.0	388	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,100	--e	7.0	--e	--e
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,643	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,484	129,998	7.0	18,614	Yes
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233	6,000[f]	7.0	6,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,780	--e	7.0	--e	--e
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	421,132	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	68	476	7.0	68	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	622	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,208	3.17E+06	7.0	454,068	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	24,794	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,057	13,933	7.0	1,995	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	34,319	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	626	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	639	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	87,520	--b	7.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	60,142	5.04E+06	7.0	721,723	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,600	20,000[d]	1.0	20,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	54,400	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	61	2,712	1.0	2,712	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	--e	1.0	--e	--e
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,400	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	17,400	129,998	1.0	129,998	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764	6,000[f]	1.0	6,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,100	--e	1.0	--e	--e
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	294,000	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	290	476	1.0	476	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	510	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,100	3.17E+06	1.0	3.17E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,700	13,933	1.0	13,933	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	53	12,526	1.0	12,526	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	480	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	380	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	--b	1.0	--b	--b
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	55,700	5.04E+06	1.0	5.04E+06	No
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98	4,766	1.0	4,766	No
100-K-29_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,300	20,000[d]	1.0	20,000	No
100-K-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	66,400	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	2,712	1.0	2,712	No
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700	--e	1.0	--e	--e
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200	6,000[f]	1.0	6,000	No
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200	--e	1.0	--e	--e
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50	476	1.0	476	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,520	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7	2,788	1.0	2,788	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	4,766	1.0	4,766	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,321	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Barium	7440-39-3	ug/kg	72,619	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	307	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,129	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	87	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.062	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chromium	7440-47-3	ug/kg	6,988	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	9,620	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Copper	7440-50-8	ug/kg	18,087	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Lead	7439-92-1	ug/kg	5,538	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Manganese	7439-96-5	ug/kg	315,657	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28	476	1.0	476	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	374	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nickel	7440-02-0	ug/kg	9,603	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	6,970	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Selenium	7782-49-2	ug/kg	285	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Silver	7440-22-4	ug/kg	63	12,526	1.0	12,526	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Uranium	7440-61-1	ug/kg	557	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-235	15117-96-1	pCi/g	0.012	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	47,848	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Zinc	7440-66-6	ug/kg	44,799	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	597	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	42,600	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	133	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	707	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	0.037	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,120	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	6,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,800	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	4,430	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	217,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	331	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	7,010	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	308	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.11	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	28,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	31,500	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Barium	7440-39-3	ug/kg	48,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Beryllium	7440-41-7	ug/kg	214	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Boron	7440-42-8	ug/kg	664	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cadmium	7440-43-9	ug/kg	56	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chromium	7440-47-3	ug/kg	4,160	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cobalt	7440-48-4	ug/kg	8,180	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Copper	7440-50-8	ug/kg	16,000	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Lead	7439-92-1	ug/kg	2,860	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Manganese	7439-96-5	ug/kg	265,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Molybdenum	7439-98-7	ug/kg	195	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nickel	7440-02-0	ug/kg	7,500	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nitrate	14797-55-8	ug/kg	8,010	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Uranium	7440-61-1	ug/kg	344	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-235	15117-96-1	pCi/g	0.017	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Vanadium	7440-62-2	ug/kg	30,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Zinc	7440-66-6	ug/kg	34,100	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	374	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	4,766	1.0	4,766	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,376	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,180	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	312	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	97	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.29	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,672	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,148	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,544	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6,000[f]	1.0	6,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,602	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	344,962	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50	476	1.0	476	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,440	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	12,632	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	258	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	12,526	1.0	12,526	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	464	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.018	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,526	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,004	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	4,766	1.0	4,766	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,640	20,000[d]	1.0	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	48,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	197	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	0.057	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	2,900	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	8,120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,700	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,190	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	258,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	224	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	6,370	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	8,680	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	369	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.017	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	30,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	33,600	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,110	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	68,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	303	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,920	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,860	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,900	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,520	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	335,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	242	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	11,100	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.016	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	300	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	485	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-235	15117-96-1	pCi/g	0.0097	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	42,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	42,500	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,100	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	56,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	283	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	56	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	4,960	--e	1.0	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	8,130	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	15,700	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,940	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	266,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	222	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	7,710	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	408	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-235	15117-96-1	pCi/g	0.020	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	35,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	33,800	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Barium	7440-39-3	ug/kg	62,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Beryllium	7440-41-7	ug/kg	267	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Boron	7440-42-8	ug/kg	958	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cadmium	7440-43-9	ug/kg	70	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chromium	7440-47-3	ug/kg	5,900	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cobalt	7440-48-4	ug/kg	8,030	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Copper	7440-50-8	ug/kg	14,800	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Lead	7439-92-1	ug/kg	5,150	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Manganese	7439-96-5	ug/kg	303,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Molybdenum	7439-98-7	ug/kg	223	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Nickel	7440-02-0	ug/kg	9,520	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.020	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Uranium	7440-61-1	ug/kg	506	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-235	15117-96-1	pCi/g	0.0063	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Vanadium	7440-62-2	ug/kg	28,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Zinc	7440-66-6	ug/kg	36,700	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,990	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Barium	7440-39-3	ug/kg	69,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Beryllium	7440-41-7	ug/kg	277	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Boron	7440-42-8	ug/kg	1,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cadmium	7440-43-9	ug/kg	75	2,712	1.0	2,712	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chromium	7440-47-3	ug/kg	8,670	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cobalt	7440-48-4	ug/kg	8,980	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Copper	7440-50-8	ug/kg	16,900	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Lead	7439-92-1	ug/kg	6,080	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Manganese	7439-96-5	ug/kg	318,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Molybdenum	7439-98-7	ug/kg	273	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nickel	7440-02-0	ug/kg	10,300	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nitrate	14797-55-8	ug/kg	5,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Uranium	7440-61-1	ug/kg	506	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-235	15117-96-1	pCi/g	0.0070	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-238	7440-61-1	pCi/g	0.23	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Vanadium	7440-62-2	ug/kg	36,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Zinc	7440-66-6	ug/kg	38,800	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Antimony	7440-36-0	ug/kg	319	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Barium	7440-39-3	ug/kg	55,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Beryllium	7440-41-7	ug/kg	291	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Boron	7440-42-8	ug/kg	2,970	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cadmium	7440-43-9	ug/kg	63	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chromium	7440-47-3	ug/kg	8,390	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cobalt	7440-48-4	ug/kg	8,390	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Copper	7440-50-8	ug/kg	16,500	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Manganese	7439-96-5	ug/kg	275,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Nickel	7440-02-0	ug/kg	19,100	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Uranium	7440-61-1	ug/kg	437	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-235	15117-96-1	pCi/g	0.0099	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Vanadium	7440-62-2	ug/kg	23,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Zinc	7440-66-6	ug/kg	32,700	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,680	20,000[d]	1.0	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Barium	7440-39-3	ug/kg	61,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Beryllium	7440-41-7	ug/kg	342	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Boron	7440-42-8	ug/kg	1,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cadmium	7440-43-9	ug/kg	72	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chromium	7440-47-3	ug/kg	7,710	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cobalt	7440-48-4	ug/kg	8,670	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Copper	7440-50-8	ug/kg	15,600	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Lead	7439-92-1	ug/kg	5,710	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Manganese	7439-96-5	ug/kg	308,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Molybdenum	7439-98-7	ug/kg	282	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Nickel	7440-02-0	ug/kg	10,200	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Uranium	7440-61-1	ug/kg	484	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-235	15117-96-1	pCi/g	0.0077	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Vanadium	7440-62-2	ug/kg	35,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Zinc	7440-66-6	ug/kg	38,600	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Barium	7440-39-3	ug/kg	62,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chromium	7440-47-3	ug/kg	4,710	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Copper	7440-50-8	ug/kg	18,400	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Lead	7439-92-1	ug/kg	4,020	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Manganese	7439-96-5	ug/kg	290,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Molybdenum	7439-98-7	ug/kg	215	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Nickel	7440-02-0	ug/kg	8,650	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Selenium	7782-49-2	ug/kg	301	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Uranium	7440-61-1	ug/kg	436	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-235	15117-96-1	pCi/g	0.0079	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Vanadium	7440-62-2	ug/kg	30,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Zinc	7440-66-6	ug/kg	38,000	5.04E+06	1.0	5.04E+06	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,090	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Barium	7440-39-3	ug/kg	64,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Beryllium	7440-41-7	ug/kg	272	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Boron	7440-42-8	ug/kg	806	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cadmium	7440-43-9	ug/kg	87	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Chromium	7440-47-3	ug/kg	8,670	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cobalt	7440-48-4	ug/kg	8,260	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Copper	7440-50-8	ug/kg	16,800	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Manganese	7439-96-5	ug/kg	324,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Molybdenum	7439-98-7	ug/kg	272	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nickel	7440-02-0	ug/kg	11,100	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nitrate	14797-55-8	ug/kg	17,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Uranium	7440-61-1	ug/kg	529	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-235	15117-96-1	pCi/g	0.028	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Vanadium	7440-62-2	ug/kg	35,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Zinc	7440-66-6	ug/kg	40,200	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,610	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Barium	7440-39-3	ug/kg	58,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Beryllium	7440-41-7	ug/kg	296	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chromium	7440-47-3	ug/kg	6,700	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Cobalt	7440-48-4	ug/kg	8,150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Copper	7440-50-8	ug/kg	16,500	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Lead	7439-92-1	ug/kg	4,780	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Manganese	7439-96-5	ug/kg	306,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Molybdenum	7439-98-7	ug/kg	250	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nickel	7440-02-0	ug/kg	9,500	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nitrate	14797-55-8	ug/kg	4,560	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Uranium	7440-61-1	ug/kg	370	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-235	15117-96-1	pCi/g	0.0078	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-238	7440-61-1	pCi/g	0.19	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Vanadium	7440-62-2	ug/kg	38,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Zinc	7440-66-6	ug/kg	38,200	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070	92,105	1.0	92,105	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,700	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Barium	7440-39-3	ug/kg	66,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Beryllium	7440-41-7	ug/kg	229	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cadmium	7440-43-9	ug/kg	64	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Cesium-137	10045-97-3	pCi/g	0.50	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chromium	7440-47-3	ug/kg	6,520	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cobalt	7440-48-4	ug/kg	9,360	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Copper	7440-50-8	ug/kg	18,800	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Lead	7439-92-1	ug/kg	3,690	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Manganese	7439-96-5	ug/kg	331,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Molybdenum	7439-98-7	ug/kg	244	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Nickel	7440-02-0	ug/kg	10,500	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5	22,536	1.0	22,536	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Uranium	7440-61-1	ug/kg	528	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-233/234	U-233/234	pCi/g	0.23	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-235	15117-96-1	pCi/g	0.022	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-238	7440-61-1	pCi/g	0.21	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Vanadium	7440-62-2	ug/kg	35,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Zinc	7440-66-6	ug/kg	39,200	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,290	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Barium	7440-39-3	ug/kg	40,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Beryllium	7440-41-7	ug/kg	175	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Boron	7440-42-8	ug/kg	549	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Chromium	7440-47-3	ug/kg	1,450	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Copper	7440-50-8	ug/kg	14,400	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Lead	7439-92-1	ug/kg	2,070	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Manganese	7439-96-5	ug/kg	205,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Molybdenum	7439-98-7	ug/kg	175	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Nickel	7440-02-0	ug/kg	5,200	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Selenium	7782-49-2	ug/kg	282	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Uranium	7440-61-1	ug/kg	373	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-235	15117-96-1	pCi/g	0.030	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-238	7440-61-1	pCi/g	0.18	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Vanadium	7440-62-2	ug/kg	24,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Zinc	7440-66-6	ug/kg	27,300	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030	92,105	1.0	92,105	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,390	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Barium	7440-39-3	ug/kg	51,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Beryllium	7440-41-7	ug/kg	247	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Boron	7440-42-8	ug/kg	2,010	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cadmium	7440-43-9	ug/kg	62	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chromium	7440-47-3	ug/kg	7,090	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cobalt	7440-48-4	ug/kg	6,860	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Copper	7440-50-8	ug/kg	13,800	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Lead	7439-92-1	ug/kg	5,070	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Manganese	7439-96-5	ug/kg	247,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Molybdenum	7439-98-7	ug/kg	211	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nickel	7440-02-0	ug/kg	8,640	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nitrate	14797-55-8	ug/kg	4,390	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.018	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Uranium	7440-61-1	ug/kg	371	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-235	15117-96-1	pCi/g	0.018	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Vanadium	7440-62-2	ug/kg	23,700	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Zinc	7440-66-6	ug/kg	31,100	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28	4,766	1.0	4,766	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,710	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Barium	7440-39-3	ug/kg	45,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Beryllium	7440-41-7	ug/kg	189	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cadmium	7440-43-9	ug/kg	83	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chromium	7440-47-3	ug/kg	2,370	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cobalt	7440-48-4	ug/kg	7,920	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Copper	7440-50-8	ug/kg	15,600	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Lead	7439-92-1	ug/kg	3,330	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Manganese	7439-96-5	ug/kg	218,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Molybdenum	7439-98-7	ug/kg	234	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Nickel	7440-02-0	ug/kg	5,650	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	--e	1.0	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Uranium	7440-61-1	ug/kg	408	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-235	15117-96-1	pCi/g	0.014	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Vanadium	7440-62-2	ug/kg	28,100	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Zinc	7440-66-6	ug/kg	30,900	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Antimony	7440-36-0	ug/kg	392	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,830	20,000[d]	1.0	20,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Barium	7440-39-3	ug/kg	72,600	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Beryllium	7440-41-7	ug/kg	357	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Boron	7440-42-8	ug/kg	1,450	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cadmium	7440-43-9	ug/kg	104	2,712	1.0	2,712	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Cesium-137	10045-97-3	pCi/g	0.059	389,000	1.0	389,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chromium	7440-47-3	ug/kg	6,600	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Copper	7440-50-8	ug/kg	18,400	129,998	1.0	129,998	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Lead	7439-92-1	ug/kg	6,840	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Manganese	7439-96-5	ug/kg	321,000	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nickel	7440-02-0	ug/kg	9,750	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nitrate	14797-55-8	ug/kg	4,650	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	--e	1.0	--e	--e
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Selenium	7782-49-2	ug/kg	273	13,933	1.0	13,933	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Silver	7440-22-4	ug/kg	59	12,526	1.0	12,526	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Uranium	7440-61-1	ug/kg	548	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-235	15117-96-1	pCi/g	0.0061	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--h	1.0	--h	--h
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Vanadium	7440-62-2	ug/kg	44,400	--b	1.0	--b	--b
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Zinc	7440-66-6	ug/kg	45,600	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.36	92,105	1.0	92,105	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,560	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	60,100	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	269	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	71	2,712	1.0	2,712	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	48	389,000	1.0	389,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	3,330	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,900	129,998	1.0	129,998	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,540	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	267,000	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	315	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,820	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Selenium	7782-49-2	ug/kg	313	13,933	1.0	13,933	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Silver	7440-22-4	ug/kg	29	12,526	1.0	12,526	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	26,400	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	16	22,536	1.0	22,536	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	410	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	437	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.026	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	49,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	38,500	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092	92,105	3.0	30,347	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	193	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,726	20,000[d]	3.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,394	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	406	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	83	2,712	3.0	894	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	3.0	128,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,069	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,796	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,640	129,998	3.0	42,832	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,721	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	325,964	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	382	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,444	3.17E+06	3.0	1.04E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16	--e	3.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	13,933	3.0	4,591	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Silver	7440-22-4	ug/kg	41	12,526	3.0	4,127	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89	22,536	3.0	7,425	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	530	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--h	3.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--h	3.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	3.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	53,139	--b	3.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,856	5.04E+06	3.0	1.66E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Anthracene	120-12-7	ug/kg	2.2	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Antimony	7440-36-0	ug/kg	120	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,000	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	63,000	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	280	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	87	2,712	1.0	2,712	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	4,700	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	12	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	12,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	17,100	129,998	1.0	129,998	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	18	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,800	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	364,000	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	430	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	9,000	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	2,390	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Selenium	7782-49-2	ug/kg	1,800	13,933	1.0	13,933	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Silver	7440-22-4	ug/kg	49	12,526	1.0	12,526	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	25,400	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	590	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	460	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.41	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.31	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	60,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	48,100	5.04E+06	1.0	5.04E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	1.0	92,105	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	1,200	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21	4,766	1.0	4,766	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,100	20,000[d]	1.0	20,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	57,800	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	270	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	110	2,712	1.0	2,712	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	1.0	389,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,600	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chrysene	218-01-9	ug/kg	73	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,100	129,998	1.0	129,998	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Europium-152	14683-23-9	pCi/g	0.23	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	6,900	--e	1.0	--e	--e
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	400	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	9,400	3.17E+06	1.0	3.17E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	1,600	13,933	1.0	13,933	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	45	12,526	1.0	12,526	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	27,800	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Strontium-90	10098-97-2	pCi/g	0.96	22,536	1.0	22,536	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	570	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	430	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.60	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.56	--h	1.0	--h	--h
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	53,600	--b	1.0	--b	--b
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	50,300	5.04E+06	1.0	5.04E+06	No
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035	92,105	1.0	92,105	No
100-K-3_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	554	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,190	20,000[d]	1.0	20,000	No
100-K-3_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	98,100	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	416	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	2,712	1.0	2,712	No
100-K-3_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.23	389,000	1.0	389,000	No
100-K-3_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	9,000	--e	1.0	--e	--e
100-K-3_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	10,700	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,900	129,998	1.0	129,998	No
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44	--e	1.0	--e	--e
100-K-3_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,110	--e	1.0	--e	--e
100-K-3_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	424,000	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	435	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,300	3.17E+06	1.0	3.17E+06	No
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047	--e	1.0	--e	--e
100-K-3_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	281	13,933	1.0	13,933	No
100-K-3_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	56	12,526	1.0	12,526	No
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	815	--b	1.0	--b	--b
100-K-3_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	1.0	--h	--h
100-K-3_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.17	--h	1.0	--h	--h
100-K-3_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	47,700	--b	1.0	--b	--b
100-K-3_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,600	5.04E+06	1.0	5.04E+06	No
100-K-3_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,730	20,000[d]	1.0	20,000	No
100-K-3_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	70,100	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	334	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	833	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	83	2,712	1.0	2,712	No
100-K-3_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.077	389,000	1.0	389,000	No
100-K-3_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,540	--e	1.0	--e	--e
100-K-3_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,400	129,998	1.0	129,998	No
100-K-3_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,460	--e	1.0	--e	--e
100-K-3_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	301,000	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	394	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,590	3.17E+06	1.0	3.17E+06	No
100-K-3_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,330	--b	1.0	--b	--b
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054	--e	1.0	--e	--e
100-K-3_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	262	13,933	1.0	13,933	No
100-K-3_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	35	12,526	1.0	12,526	No
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--b	1.0	--b	--b
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67	22,536	1.0	22,536	No
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	522	--b	1.0	--b	--b
100-K-3_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	--h	1.0	--h	--h
100-K-3_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.21	--h	1.0	--h	--h
100-K-3_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	53,700	--b	1.0	--b	--b
100-K-3_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	45,000	5.04E+06	1.0	5.04E+06	No
100-K-30_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,600	20,000[d]	1.0	20,000	No
100-K-30_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	69,700	--b	1.0	--b	--b
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640	2,712	1.0	2,712	No
100-K-30_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,200	--e	1.0	--e	--e
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702	6,000[f]	1.0	6,000	No
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000	--e	1.0	--e	--e
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	476	1.0	476	Yes
100-K-31_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	--b	1.0	--b	--b
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750	2,712	1.0	2,712	No
100-K-31_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,300	--e	1.0	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220	6,000[f]	1.0	6,000	No
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400	--e	1.0	--e	--e
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	476	1.0	476	Yes
100-K-31_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	400	13,933	1.0	13,933	No
100-K-32_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,000	20,000[d]	1.0	20,000	No
100-K-32_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	97,400	--b	1.0	--b	--b
100-K-32_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	380	2,712	1.0	2,712	No
100-K-32_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,900	--e	1.0	--e	--e
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6,000[f]	1.0	6,000	No
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800	--e	1.0	--e	--e
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	476	1.0	476	Yes
100-K-33_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	6,700	20,000[d]	1.0	20,000	No
100-K-33_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	105,000	--b	1.0	--b	--b
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000	2,712	1.0	2,712	No
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900	--e	1.0	--e	--e
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400	6,000[f]	1.0	6,000	No
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800	--e	1.0	--e	--e
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	476	1.0	476	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	417	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,670	20,000[d]	15	20,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,900	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	320	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,760	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	141	2,712	15	186	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--e	15	--e	--e
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,300	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	129,998	15	8,900	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124	6,000[f]	15	6,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110	--e	15	--e	--e
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	383,474	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189	476	15	33	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176	3.17E+06	15	217,108	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	38,265	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	754	13,933	15	954	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	675	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	73,516	--b	15	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,300	5.04E+06	15	345,085	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	7,700	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	14,800	20,000[d]	1.0	20,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,500	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	410	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950	2,712	1.0	2,712	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,900	--e	1.0	--e	--e
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	12,000	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500	129,998	1.0	129,998	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100	--e	1.0	--e	--e
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	408,000	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	476	1.0	476	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	3.17E+06	1.0	3.17E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	26,600	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200	13,933	1.0	13,933	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	74	12,526	1.0	12,526	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	810	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200	--b	1.0	--b	--b
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000	5.04E+06	1.0	5.04E+06	No
100-K-34_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,620	20,000[d]	2.9	20,000	No
100-K-34_Shallow	non-Rad	Barium	7440-39-3	ug/kg	53,400	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	412	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,150	--e	2.9	--e	--e
100-K-34_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,600	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,600	129,998	2.9	44,426	No
100-K-34_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,960	--e	2.9	--e	--e
100-K-34_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	415,000	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,360	3.17E+06	2.9	1.08E+06	No
100-K-34_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	5,890	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913	13,933	2.9	4,762	No
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	490	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400	--b	2.9	--b	--b
100-K-34_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,700	5.04E+06	2.9	1.72E+06	No
100-K-36_Deep_Focused	non-Rad	Antimony	7440-36-0	ug/kg	315	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	6,990	20,000[d]	1.0	20,000	No
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	766	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,320	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	175	2,712	1.0	2,712	No
100-K-36_Deep_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,700	--e	1.0	--e	--e
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500	129,998	1.0	129,998	No
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500	--e	1.0	--e	--e
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27	476	1.0	476	No
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000	3.17E+06	1.0	3.17E+06	No
100-K-36_Deep_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	4,250	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Silver	7440-22-4	ug/kg	94	12,526	1.0	12,526	No
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Uranium	7440-61-1	ug/kg	1,190	--b	1.0	--b	--b
100-K-36_Deep_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	--h	1.0	--h	--h
100-K-36_Deep_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--h	1.0	--h	--h
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000	--b	1.0	--b	--b
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000	5.04E+06	1.0	5.04E+06	No
100-K-36_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,440	20,000[d]	1.00	20,000	No
100-K-36_Shallow	non-Rad	Barium	7440-39-3	ug/kg	74,300	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	303	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,010	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	2,712	1.00	2,722	No
100-K-36_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,310	--e	1.00	--e	--e
100-K-36_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,020	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,600	129,998	1.00	130,494	No
100-K-36_Shallow	non-Rad	Lead	7439-92-1	ug/kg	3,980	--e	1.00	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-36_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	288,000	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	419	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,300	3.17E+06	1.00	3.18E+06	No
100-K-36_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	18,900	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	12,526	1.00	12,574	No
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	461	--b	1.00	--b	--b
100-K-36_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.19	--h	1.00	--h	--h
100-K-36_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--h	1.00	--h	--h
100-K-36_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	45,500	--b	1.00	--b	--b
100-K-36_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	42,800	5.04E+06	1.00	5.06E+06	No
100-K-4_Deep	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,884	20,000[d]	37	20,000	No
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000	--b	37	--b	--b
100-K-4_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	200	--b	37	--b	--b
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700	--b	37	--b	--b
100-K-4_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.021	389,000	37	10,469	No
100-K-4_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,570	--e	37	--e	--e
100-K-4_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	--b	37	--b	--b
100-K-4_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,000	129,998	37	3,499	Yes
100-K-4_Deep	non-Rad	Lead	7439-92-1	ug/kg	4,275	--e	37	--e	--e
100-K-4_Deep	non-Rad	Manganese	7439-96-5	ug/kg	353,591	--b	37	--b	--b
100-K-4_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	385	--b	37	--b	--b
100-K-4_Deep	non-Rad	Nickel	7440-02-0	ug/kg	6,416	3.17E+06	37	85,347	No
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	13,933	37	375	Yes
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010	--b	37	--b	--b
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430	--b	37	--b	--b
100-K-4_Deep	non-Rad	Uranium	7440-61-1	ug/kg	1,030	--b	37	--b	--b
100-K-4_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	--h	37	--h	--h
100-K-4_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.69	--h	37	--h	--h
100-K-4_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	59,126	--b	37	--b	--b
100-K-4_Deep	non-Rad	Zinc	7440-66-6	ug/kg	37,800	5.04E+06	37	135,657	No
100-K-4_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	320	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,410	20,000[d]	37	20,000	No
100-K-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	72,700	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	250	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	120	2,712	37	73	Yes
100-K-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	37	10,469	No
100-K-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,200	--e	37	--e	--e
100-K-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,550	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,000	129,998	37	3,499	Yes
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325	--e	37	--e	--e
100-K-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	313,000	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,658	3.17E+06	37	85,347	No
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	13,933	37	375	Yes
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	640	--b	37	--b	--b
100-K-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--h	37	--h	--h
100-K-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.70	--h	37	--h	--h
100-K-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	55,990	--b	37	--b	--b
100-K-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,213	5.04E+06	37	135,657	No
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43	92,105	1.8	52,415	No
100-K-46_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,180	--b	1.8	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-46_Deep	non-Rad	Arsenic[c]	7440-38-2	ug/kg	5,180	20,000[d]	1.8	20,000	No
100-K-46_Deep	non-Rad	Barium	7440-39-3	ug/kg	79,500	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	436	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,130	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	78	2,712	1.8	1,543	No
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6	57	1.8	32	No
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2	389,000	1.8	221,371	No
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500	--e	1.8	--e	--e
100-K-46_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	11,200	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	129,998	1.8	73,979	Yes
100-K-46_Deep	non-Rad	Lead	7439-92-1	ug/kg	6,930	--e	1.8	--e	--e
100-K-46_Deep	non-Rad	Manganese	7439-96-5	ug/kg	416,000	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300	3.17E+06	1.8	1.80E+06	No
100-K-46_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	4,430	--b	1.8	--b	--b
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--e	1.8	--e	--e
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33	--e	1.8	--e	--e
100-K-46_Deep	non-Rad	Silver	7440-22-4	ug/kg	102	12,526	1.8	7,128	No
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000	--b	1.8	--b	--b
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99	22,536	1.8	12,825	No
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Uranium	7440-61-1	ug/kg	583	--b	1.8	--b	--b
100-K-46_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	1.8	--h	--h
100-K-46_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.15	--h	1.8	--h	--h
100-K-46_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	41,400	--b	1.8	--b	--b
100-K-46_Deep	non-Rad	Zinc	7440-66-6	ug/kg	46,500	5.04E+06	1.8	2.87E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	3.0	30,347	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,330	20,000[d]	3.0	20,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Barium	7440-39-3	ug/kg	53,800	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	253	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	59	2,712	3.0	894	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.67	389,000	3.0	128,170	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,420	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,660	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,800	129,998	3.0	42,832	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Lead	7439-92-1	ug/kg	2,070	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Manganese	7439-96-5	ug/kg	248,000	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	332	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Nickel	7440-02-0	ug/kg	5,810	3.17E+06	3.0	1.04E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23	--e	3.0	--e	--e
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Silver	7440-22-4	ug/kg	27	12,526	3.0	4,127	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8	22,536	3.0	7,425	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Uranium	7440-61-1	ug/kg	389	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	--h	3.0	--h	--h
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.12	--h	3.0	--h	--h
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	58,700	--b	3.0	--b	--b
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Zinc	7440-66-6	ug/kg	39,700	5.04E+06	3.0	1.66E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,960	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2	4,766	8.4	565	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4	--e	8.4	--e	--e
100-K-50, 1607-K2_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,752	20,000[d]	8.4	20,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,832	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,384	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,916	--e	8.4	--e	--e
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,506	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,182	129,998	8.4	15,406	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383	6,000[f]	8.4	6,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,809	--e	8.4	--e	--e
100-K-50, 1607-K2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,821	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126	476	8.4	56	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,105	3.17E+06	8.4	375,811	No
100-K-50, 1607-K2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	21,751	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990	13,933	8.4	1,651	No
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785	12,526	8.4	1,484	No
100-K-50, 1607-K2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	4,217	2.00E+06	8.4	2.00E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	80,081	--b	8.4	--b	--b
100-K-50, 1607-K2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,702	5.04E+06	8.4	597,338	No
100-K-53_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	9,836	20,000[d]	1.0	20,000	No
100-K-53_Shallow	non-Rad	Barium	7440-39-3	ug/kg	57,754	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	335	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	121	2,712	1.0	2,712	No
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	1.0	389,000	No
100-K-53_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,366	--e	1.0	--e	--e
100-K-53_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,340	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208	129,998	1.0	129,998	No
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6,000[f]	1.0	6,000	No
100-K-53_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,593	--e	1.0	--e	--e
100-K-53_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	349,137	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58	476	1.0	476	No
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,466	3.17E+06	1.0	3.17E+06	No
100-K-53_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,885	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	749	13,933	1.0	13,933	No
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	542	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	75,198	--b	1.0	--b	--b
100-K-53_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	54,691	5.04E+06	1.0	5.04E+06	No
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9	389,000	1.0	389,000	No
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59	--e	1.0	--e	--e
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78	--e	1.0	--e	--e
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29	--e	1.0	--e	--e
100-K-55:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.28	389,000	1.0	389,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19	--e	1.0	--e	--e
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0	--e	1.0	--e	--e
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23	--e	1.0	--e	--e
100-K-55:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.61	389,000	1.0	389,000	No
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11	--e	1.0	--e	--e
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3	--e	1.0	--e	--e
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19	--e	1.0	--e	--e
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37	22,536	1.0	22,536	No
100-K-55:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.70	--h	1.0	--h	--h
100-K-55:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.78	--h	1.0	--h	--h
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26	389,000	1.0	389,000	No
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1	--e	1.0	--e	--e
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31	--e	1.0	--e	--e
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0	--e	1.0	--e	--e
100-K-56:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.0	389,000	1.0	389,000	No
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14	--e	1.0	--e	--e
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3	--e	1.0	--e	--e
100-K-56:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.31	389,000	1.0	389,000	No
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15	--e	1.0	--e	--e
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1	--e	1.0	--e	--e
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33	--e	1.0	--e	--e
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937	6,000[f]	1.0	6,000	No
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50	22,536	1.0	22,536	No
100-K-56:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.45	--h	1.0	--h	--h
100-K-56:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.49	--h	1.0	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	14	6,702	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,339	20,000[d]	14	20,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	66,573	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	318	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,945	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	88	2,712	14	197	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	57	14	4.1	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7	389,000	14	28,303	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,914	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,853	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	16,707	129,998	14	9,459	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	7,036	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	317,896	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,860	3.17E+06	14	230,736	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,545	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	270	13,933	14	1,014	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	59	12,526	14	911	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79	22,536	14	1,640	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	518	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	40,247	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	40,250	5.04E+06	14	366,745	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1	92,105	14	6,702	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,925	20,000[d]	14	20,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	73,256	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	422	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	896	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	92	2,712	14	197	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	57	14	4.1	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	14	28,303	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,333	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	11,423	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	19,939	129,998	14	9,459	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,256	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	376,144	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	10,901	3.17E+06	14	230,736	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,216	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2	--e	14	--e	--e
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	324	13,933	14	1,014	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	75	12,526	14	911	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11	22,536	14	1,640	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3	1,040	14	76	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	591	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-235	15117-96-1	pCi/g	0.022	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.18	--h	14	--h	--h
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	64,300	--b	14	--b	--b
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	51,024	5.04E+06	14	366,745	No
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055	92,105	2.1	43,064	No
100-K-6_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,280	20,000[d]	2.1	20,000	No
100-K-6_Shallow	non-Rad	Barium	7440-39-3	ug/kg	61,100	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	339	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	81	2,712	2.1	1,268	No
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	57	2.1	27	Yes
100-K-6_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.51	389,000	2.1	181,878	No
100-K-6_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,290	--e	2.1	--e	--e
100-K-6_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,310	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,700	129,998	2.1	60,781	No
100-K-6_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,070	--e	2.1	--e	--e
100-K-6_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	279,000	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,270	3.17E+06	2.1	1.48E+06	No
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042	--e	2.1	--e	--e
100-K-6_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	13,933	2.1	6,514	No
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	477	--b	2.1	--b	--b
100-K-6_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	--h	2.1	--h	--h
100-K-6_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.019	--h	2.1	--h	--h
100-K-6_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.20	--h	2.1	--h	--h
100-K-6_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	42,300	--b	2.1	--b	--b
100-K-6_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	40,700	5.04E+06	2.1	2.36E+06	No
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	14	6,702	No
100-K-62_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,290	20,000[d]	14	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-62_Shallow	non-Rad	Barium	7440-39-3	ug/kg	50,500	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	228	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	55	2,712	14	197	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	57	14	4.1	Yes
100-K-62_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.84	389,000	14	28,303	No
100-K-62_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	3,950	--e	14	--e	--e
100-K-62_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,370	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,900	129,998	14	9,459	Yes
100-K-62_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,330	--e	14	--e	--e
100-K-62_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	261,000	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	303	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,970	3.17E+06	14	230,736	No
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--e	14	--e	--e
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20	--e	14	--e	--e
100-K-62_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	312	13,933	14	1,014	No
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900	--b	14	--b	--b
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76	22,536	14	1,640	No
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	357	--b	14	--b	--b
100-K-62_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	--h	14	--h	--h
100-K-62_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.013	--h	14	--h	--h
100-K-62_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	--h	14	--h	--h
100-K-62_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	--b	14	--b	--b
100-K-62_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	35,000	5.04E+06	14	366,745	No
100-K-63_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	190	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,008	20,000[d]	146	20,000	No
100-K-63_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	69,197	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	345	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	2,954	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	189	2,712	146	19	Yes
100-K-63_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.31	389,000	146	2,655	No
100-K-63_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,051	--e	146	--e	--e
100-K-63_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,147	--b	146	--b	--b
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023	--e	146	--e	--e
100-K-63_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,275	129,998	146	887	Yes
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19	--e	146	--e	--e
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--e	146	--e	--e
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20	--e	146	--e	--e
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152	6,000[f]	146	6,000	No
100-K-63_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	9,659	--e	146	--e	--e
100-K-63_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	362,077	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14	476	146	3.2	Yes
100-K-63_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	450	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	13,324	3.17E+06	146	21,647	No
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	13,933	146	95	Yes
100-K-63_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	55	12,526	146	86	No
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553	--b	146	--b	--b
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1	22,536	146	154	No
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	516	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,351	--b	146	--b	--b
100-K-63_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	58,669	5.04E+06	146	34,407	Yes
100-K-63_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	316	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,876	20,000[d]	146	20,000	No
100-K-63_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	78,317	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	353	--b	146	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-63_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,021	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	178	2,712	146	19	Yes
100-K-63_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.41	389,000	146	2,655	No
100-K-63_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	17,235	--e	146	--e	--e
100-K-63_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,831	--b	146	--b	--b
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041	--e	146	--e	--e
100-K-63_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	16,680	129,998	146	887	Yes
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091	--e	146	--e	--e
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14	--e	146	--e	--e
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047	--e	146	--e	--e
100-K-63_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	328,776	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	15,105	3.17E+06	146	21,647	No
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874	13,933	146	95	Yes
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140	--b	146	--b	--b
100-K-63_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.16	22,536	146	154	No
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	690	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,404	--b	146	--b	--b
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	5.04E+06	146	34,407	Yes
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,110	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	9,888	20,000[d]	3.2	20,000	No
100-K-77_Shallow	non-Rad	Barium	7440-39-3	ug/kg	84,028	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	410	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	277	2,712	3.2	837	No
100-K-77_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.47	389,000	3.2	120,100	No
100-K-77_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	16,273	--e	3.2	--e	--e
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,800	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Copper	7440-50-8	ug/kg	18,900	129,998	3.2	40,136	No
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130	6,000[f]	3.2	6,000	No
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,200	--e	3.2	--e	--e
100-K-77_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	13,419	3.17E+06	3.2	979,085	No
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927	13,933	3.2	4,302	No
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	771	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,900	--b	3.2	--b	--b
100-K-77_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,200	5.04E+06	3.2	1.56E+06	No
100-K-78_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.08E+07	--e	1.0	--e	--e
100-K-78_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	391	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,330	20,000[d]	1.0	20,000	No
100-K-78_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,300	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	357	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,570	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-78_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	136	2,712	1.0	2,712	No
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	No
100-K-78_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.32	389,000	1.0	389,000	No
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--e	1.0	--e	--e
100-K-78_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,110	--b	1.0	--b	--b
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073	--e	1.0	--e	--e
100-K-78_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	129,998	1.0	129,998	No
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27	--e	1.0	--e	--e
100-K-78_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.96E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-78_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,380	--e	1.0	--e	--e
100-K-78_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	288,000	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	452	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,800	3.17E+06	1.0	3.17E+06	No
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2	19,048	1.0	19,048	No
100-K-78_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.84	--h	1.0	--h	--h
100-K-78_Shallow_Focused	Rad	Uranium-235	15117-96-1	pCi/g	0.048	--h	1.0	--h	--h
100-K-78_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.93	--h	1.0	--h	--h
100-K-78_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	42,900	--b	1.0	--b	--b
100-K-78_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,000	5.04E+06	1.0	5.04E+06	No
100-K-84_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.24E+06	--e	6.5	--e	--e
100-K-84_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	6,390	20,000[d]	6.5	20,000	No
100-K-84_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,104	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	555	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,361	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	66	2,712	6.5	419	No
100-K-84_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,253	--e	6.5	--e	--e
100-K-84_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,127	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	129,998	6.5	20,079	Yes
100-K-84_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.49E+07	1.49E+07	6.5	2.30E+06	Yes
100-K-84_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,746	--e	6.5	--e	--e
100-K-84_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	339,331	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	476	6.5	74	Yes
100-K-84_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	345	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,755	3.17E+06	6.5	489,827	No
100-K-84_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	58,919	--b	6.5	--b	--b
100-K-84_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	52,211	5.04E+06	6.5	778,561	No
100-K-85_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	7.65E+06	--e	1.0	--e	--e
100-K-85_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
100-K-85_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	56,700	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	230	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,100	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	62	2,712	1.0	2,712	No
100-K-85_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,800	--e	1.0	--e	--e
100-K-85_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,400	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,100	129,998	1.0	129,998	No
100-K-85_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.27E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-85_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,800	--e	1.0	--e	--e
100-K-85_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	327,000	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	9.9	476	1.0	476	No
100-K-85_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	360	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,900	3.17E+06	1.0	3.17E+06	No
100-K-85_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	52,800	--b	1.0	--b	--b
100-K-85_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	46,500	5.04E+06	1.0	5.04E+06	No
100-K-86_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.78E+06	--e	1.0	--e	--e
100-K-86_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	470	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-86_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,100	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	430	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,900	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	58	2,712	1.0	2,712	No
100-K-86_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	--e	1.0	--e	--e
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,900	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	129,998	1.0	129,998	No
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.38E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-86_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,000	--e	1.0	--e	--e
100-K-86_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	399,000	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	10,500	3.17E+06	1.0	3.17E+06	No
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	84,000	2.00E+06	1.0	2.00E+06	No
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	160,000	2.00E+06	1.0	2.00E+06	No
100-K-86_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	58,900	--b	1.0	--b	--b
100-K-86_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	48,800	5.04E+06	1.0	5.04E+06	No
100-K-88_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.35E+06	--e	1.0	--e	--e
100-K-88_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	890	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	9,100	20,000[d]	1.0	20,000	No
100-K-88_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	103,000	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,400	--e	1.0	--e	--e
100-K-88_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	4,400	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,000	129,998	1.0	129,998	No
100-K-88_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.34E+07	1.49E+07	1.0	1.49E+07	No
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100	--e	1.0	--e	--e
100-K-88_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	258,000	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	7.2	476	1.0	476	No
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,100	3.17E+06	1.0	3.17E+06	No
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200	13,933	1.0	13,933	No
100-K-88_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	33,600	--b	1.0	--b	--b
100-K-88_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	52,100	5.04E+06	1.0	5.04E+06	No
100-K-89, 600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	--e	197	--e	--e
100-K-89, 600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	434	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,084	20,000[d]	197	20,000	No
100-K-89, 600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	80,487	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	686	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	2,117	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	88	2,712	197	14	Yes
100-K-89, 600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	12,216	--e	197	--e	--e
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,924	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,869	129,998	197	659	Yes
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	1.49E+07	197	75,663	Yes

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-89, 600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,445	--e	197	--e	--e
100-K-89, 600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	406,274	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	5.7	476	197	2.4	Yes
100-K-89, 600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,496	3.17E+06	197	16,087	No
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896	13,933	197	71	Yes
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	31,656	2.00E+06	197	2.00E+06	No
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	59,899	2.00E+06	197	2.00E+06	No
100-K-89, 600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	60,142	--b	197	--b	--b
100-K-89, 600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	47,545	5.04E+06	197	25,569	Yes
100-K-89, 600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.09E+07	--e	1.0	--e	--e
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	4,100	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	15,400	20,000[d]	1.0	20,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	84,500	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	710	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,500	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	2,712	1.0	2,712	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,200	--e	1.0	--e	--e
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500	129,998	1.0	129,998	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.46E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900	--e	1.0	--e	--e
100-K-89, 600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	410,000	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	476	1.0	476	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	440	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	12,800	3.17E+06	1.0	3.17E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890	13,933	1.0	13,933	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	90,000	2.00E+06	1.0	2.00E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	140,000	2.00E+06	1.0	2.00E+06	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	57,600	--b	1.0	--b	--b
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000	5.04E+06	1.0	5.04E+06	No
100-K-90_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.65E+06	--e	1.0	--e	--e
100-K-90_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	17,000	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	58	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	1,400	--e	1.0	--e	--e
100-K-90_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	1,600	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	3,600	129,998	1.0	129,998	No
100-K-90_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	4.25E+06	1.49E+07	1.0	1.49E+07	No
100-K-90_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,700	--e	1.0	--e	--e
100-K-90_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	61,700	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17	476	1.0	476	No
100-K-90_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	350	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	1,900	3.17E+06	1.0	3.17E+06	No
100-K-90_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	11,000	--b	1.0	--b	--b
100-K-90_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	14,100	5.04E+06	1.0	5.04E+06	No
100-K-91_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	--e	1.0	--e	--e
100-K-91_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,300	20,000[d]	1.0	20,000	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-91_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	62,100	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	320	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,800	--e	1.0	--e	--e
100-K-91_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,800	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	13,500	129,998	1.0	129,998	No
100-K-91_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.74E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-91_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,300	--e	1.0	--e	--e
100-K-91_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	291,000	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	476	1.0	476	Yes
100-K-91_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,600	3.17E+06	1.0	3.17E+06	No
100-K-91_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	36,800	--b	1.0	--b	--b
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000	5.04E+06	1.0	5.04E+06	No
100-K-92_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.86E+06	--e	1.0	--e	--e
100-K-92_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,900	20,000[d]	1.0	20,000	No
100-K-92_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	70,900	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	390	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,300	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	140	2,712	1.0	2,712	No
100-K-92_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	--e	1.0	--e	--e
100-K-92_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	129,998	1.0	129,998	No
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216	6,000[f]	1.0	6,000	No
100-K-92_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.09E+07	1.49E+07	1.0	1.49E+07	Yes
100-K-92_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	8,300	--e	1.0	--e	--e
100-K-92_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	362,000	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,200	3.17E+06	1.0	3.17E+06	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	14,000	2.00E+06	1.0	2.00E+06	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	29,000	2.00E+06	1.0	2.00E+06	No
100-K-92_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	46,400	--b	1.0	--b	--b
100-K-92_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,100	5.04E+06	1.0	5.04E+06	No
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104	--b	131	--b	--b
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	38,541	2.00E+06	131	2.00E+06	No
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,020	2.00E+06	131	2.00E+06	No
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	160	2,425	No
116-K-1_Deep	non-Rad	Chromium	7440-47-3	ug/kg	14,607	--e	160	--e	--e
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5	--e	160	--e	--e
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5	--e	160	--e	--e
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0	--e	160	--e	--e
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560	6,000[f]	160	6,000	No
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6	22,536	160	140	No
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	160	2,425	No
116-K-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	13,705	--e	160	--e	--e
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--e	160	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23	--e	160	--e	--e
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260	6,000[f]	160	6,000	No
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7	22,536	160	140	No
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9	92,105	18	5,249	No
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0	57	18	3.2	No
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140	389,000	18	22,169	No
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8	--e	18	--e	--e
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69	--e	18	--e	--e
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2	--e	18	--e	--e
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000[f]	18	6,000	Yes
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995	19,048	18	1,086	No
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72	--e	18	--e	--e
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9	--e	18	--e	--e
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7	22,536	18	1,284	No
116-K-2_Deep_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.86	--h	18	--h	--h
116-K-2_Deep_1	Rad	Uranium-235	15117-96-1	pCi/g	0.044	--h	18	--h	--h
116-K-2_Deep_1	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--h	18	--h	--h
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	18	5,249	No
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	57	18	3.2	Yes
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144	389,000	18	22,169	No
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4	--e	18	--e	--e
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82	--e	18	--e	--e
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12	--e	18	--e	--e
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688	6,000[f]	18	6,000	No
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659	19,048	18	1,086	No
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24	--e	18	--e	--e
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0	--e	18	--e	--e
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7	22,536	18	1,284	No
116-K-2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.75	--h	18	--h	--h
116-K-2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--h	18	--h	--h
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0	57	18	3.2	No
116-K-2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.63	389,000	18	22,169	No
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35	--e	18	--e	--e
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670	6,000[f]	18	6,000	No
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8	19,048	18	1,086	No
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19	22,536	18	1,284	No
116-K-2_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	--h	18	--h	--h
116-K-2_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.61	--h	18	--h	--h
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0	389,000	18	22,169	No
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68	--e	18	--e	--e
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17	--e	18	--e	--e
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250	6,000[f]	18	6,000	No
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	18	1,086	No
116-K-2_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.15	22,536	18	1,284	No
116-K-2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--h	18	--h	--h
116-K-2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.67	--h	18	--h	--h
116-KE-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.22	389,000	117	3,316	No
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086	--e	117	--e	--e
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69	--e	117	--e	--e
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19	--e	117	--e	--e
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211	6,000[f]	117	6,000	No
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	117	162	No
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21	22,536	117	192	No
116-KE-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	--h	117	--h	--h
116-KE-4_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.020	--h	117	--h	--h

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
116-KE-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.56	--h	117	--h	--h
116-KE-5_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
116-KE-5_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	100,000	--b	1.0	--b	--b
116-KE-5_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	195	2,712	1.0	2,712	No
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--e	1.0	--e	--e
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038	--b	1.0	--b	--b
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330	6,000[f]	1.0	6,000	No
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300	--e	1.0	--e	--e
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102	476	1.0	476	No
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53	92,105	114	806	No
116-KW-3_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.18	389,000	114	3,404	No
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10	--e	114	--e	--e
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5	--e	114	--e	--e
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26	--e	114	--e	--e
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543	6,000[f]	114	6,000	No
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92	--e	114	--e	--e
116-KW-3_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	--h	114	--h	--h
116-KW-3_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.039	--h	114	--h	--h
116-KW-3_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.65	--h	114	--h	--h
116-KW-4_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,600	20,000[d]	1.0	20,000	No
116-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	59,300	--b	1.0	--b	--b
116-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,100	--e	1.0	--e	--e
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240	6,000[f]	1.0	6,000	No
116-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,500	--e	1.0	--e	--e
118-K-1_P1_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	--e	246	--e	--e
118-K-1_P1_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	61,500	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	600	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	2,712	246	11	Yes
118-K-1_P1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,000	--e	246	--e	--e
118-K-1_P1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,300	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	17,875	129,998	246	529	Yes
118-K-1_P1_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.86E+07	1.49E+07	246	60,725	Yes
118-K-1_P1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,680	--e	246	--e	--e
118-K-1_P1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	366,000	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	11,600	3.17E+06	246	12,911	No
118-K-1_P1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	73,527	--b	246	--b	--b
118-K-1_P1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	56,000	5.04E+06	246	20,521	Yes
118-K-1_P1_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	8.68E+06	--e	246	--e	--e
118-K-1_P1_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,288	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	74,500	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	388	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,600	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	288	2,712	246	11	Yes
118-K-1_P1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.18	389,000	246	1,584	No
118-K-1_P1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	12,792	--e	246	--e	--e
118-K-1_P1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,972	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Copperf	7440-50-8	ug/kg	22,271	129,998	53	2,451	Yes
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33	--e	246	--e	--e
118-K-1_P1_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	2.81E+07	1.49E+07	246	60,725	Yes
118-K-1_P1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	6,680	--e	246	--e	--e
118-K-1_P1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	389,000	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776	--b	246	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	13,200	3.17E+06	246	12,911	Yes
118-K-1_P1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	71,916	--b	246	--b	--b
118-K-1_P1_Shallow_2	non-Rad	Zinc[c]	7440-66-6	ug/kg	75,395	5.04E+06	53	95,029	No
118-K-1_P1_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	8.17E+06	--e	246	--e	--e
118-K-1_P1_Shallow_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,819	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	66,135	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	700	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,425	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	200	2,712	246	11	Yes
118-K-1_P1_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	11,165	--e	246	--e	--e
118-K-1_P1_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	129,998	246	529	Yes
118-K-1_P1_Shallow_3	non-Rad	Iron[c]	7439-89-6	ug/kg	3.36E+07	1.49E+07	18	838,047	Yes
118-K-1_P1_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,143	--e	246	--e	--e
118-K-1_P1_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	391,000	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	11,000	3.17E+06	246	12,911	No
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500	--b	246	--b	--b
118-K-1_P1_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	60,700	5.04E+06	246	20,521	Yes
118-K-1_P1_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	1.03E+07	--e	246	--e	--e
118-K-1_P1_Shallow_4	non-Rad	Antimony	7440-36-0	ug/kg	400	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	5,303	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	88,103	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	725	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	2,411	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	337	2,712	246	11	Yes
118-K-1_P1_Shallow_4	Rad	Cesium-137	10045-97-3	pCi/g	0.32	389,000	246	1,584	No
118-K-1_P1_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	14,500	--e	246	--e	--e
118-K-1_P1_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,924	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	19,645	129,998	246	529	Yes
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13	--e	246	--e	--e
118-K-1_P1_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.57E+07	1.49E+07	246	60,725	Yes
118-K-1_P1_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	6,506	--e	246	--e	--e
118-K-1_P1_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	400,414	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Mercury	7439-97-6	ug/kg	10	476	246	1.9	Yes
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	13,367	3.17E+06	246	12,911	Yes
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6	22,536	246	92	No
118-K-1_P1_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,733	--b	246	--b	--b
118-K-1_P1_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	56,062	5.04E+06	246	20,521	Yes
118-K-1_P1_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	9.57E+06	--e	246	--e	--e
118-K-1_P1_Shallow_5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,708	20,000[d]	246	20,000	No
118-K-1_P1_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	72,800	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	700	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,900	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	200	2,712	246	11	Yes
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5	389,000	246	1,584	No
118-K-1_P1_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	12,800	--e	246	--e	--e
118-K-1_P1_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	10,275	--b	246	--b	--b
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082	--e	246	--e	--e
118-K-1_P1_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,400	129,998	246	529	Yes
118-K-1_P1_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	2.87E+07	1.49E+07	246	60,725	Yes
118-K-1_P1_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	5,650	--e	246	--e	--e
118-K-1_P1_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	416,000	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride	75-09-2	ug/kg	6.0	--b	246	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	13,483	3.17E+06	246	12,911	Yes
118-K-1_P1_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	77,441	--b	246	--b	--b
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073	--e	246	--e	--e
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86	22,536	246	92	No
118-K-1_P1_Shallow_5	Rad	Uranium-233/234	U-233/234	pCi/g	1.0	--h	246	--h	--h
118-K-1_P1_Shallow_5	Rad	Uranium-238	7440-61-1	pCi/g	0.79	--h	246	--h	--h
118-K-1_P1_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	74,400	--b	246	--b	--b
118-K-1_P1_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	58,098	5.04E+06	246	20,521	Yes
118-K-1_P1_Shallow_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.76E+06	--e	1.0	--e	--e
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093	92,105	1.0	92,105	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,800	20,000[d]	1.0	20,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	68,600	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	400	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	2,712	1.0	2,712	No
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7	389,000	1.0	389,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	10,500	--e	1.0	--e	--e
118-K-1_P1_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	21,200	129,998	1.0	129,998	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	2.82E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P1_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	6,600	--e	1.0	--e	--e
118-K-1_P1_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	408,000	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	11,400	3.17E+06	1.0	3.17E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	18,100	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087	--e	1.0	--e	--e
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0	22,536	1.0	22,536	No
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.62	--h	1.0	--h	--h
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.046	--h	1.0	--h	--h
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	--h	1.0	--h	--h
118-K-1_P1_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	69,700	--b	1.0	--b	--b
118-K-1_P1_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	57,500	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Deep_2	non-Rad	Aluminum	7429-90-5	ug/kg	4.93E+06	--e	246	--e	--e
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30	92,105	246	375	No
118-K-1_P2_Deep_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,380	20,000[d]	246	20,000	No
118-K-1_P2_Deep_2	non-Rad	Barium	7440-39-3	ug/kg	50,741	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Beryllium	7440-41-7	ug/kg	235	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Boron	7440-42-8	ug/kg	648	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Cadmium	7440-43-9	ug/kg	119	2,712	246	11	Yes
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5	57	246	0.23	Yes
118-K-1_P2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	0.093	389,000	246	1,584	No
118-K-1_P2_Deep_2	non-Rad	Chromium	7440-47-3	ug/kg	5,327	--e	246	--e	--e
118-K-1_P2_Deep_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,270	--b	246	--b	--b
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23	--e	246	--e	--e
118-K-1_P2_Deep_2	non-Rad	Copper	7440-50-8	ug/kg	14,311	129,998	246	529	Yes
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46	--e	246	--e	--e
118-K-1_P2_Deep_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Deep_2	non-Rad	Lead	7439-92-1	ug/kg	3,034	--e	246	--e	--e
118-K-1_P2_Deep_2	non-Rad	Manganese	7439-96-5	ug/kg	289,000	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Molybdenum	7439-98-7	ug/kg	307	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Nickel	7440-02-0	ug/kg	8,045	3.17E+06	246	12,911	No
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11	19,048	246	78	No
118-K-1_P2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	--h	246	--h	--h
118-K-1_P2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.64	--h	246	--h	--h

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,754	--b	246	--b	--b
118-K-1_P2_Deep_2	non-Rad	Zinc	7440-66-6	ug/kg	59,990	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_3	non-Rad	Aluminum	7429-90-5	ug/kg	4.75E+06	--e	246	--e	--e
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24	92,105	246	375	No
118-K-1_P2_Deep_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,740	20,000[d]	246	20,000	No
118-K-1_P2_Deep_3	non-Rad	Barium	7440-39-3	ug/kg	47,321	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Beryllium	7440-41-7	ug/kg	217	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Boron	7440-42-8	ug/kg	616	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Cadmium	7440-43-9	ug/kg	62	2,712	246	11	Yes
118-K-1_P2_Deep_3	Rad	Carbon-14[c,g]	14762-75-5	pCi/g	2.3	--e	46	--e	--e
118-K-1_P2_Deep_3	Rad	Cesium-137	10045-97-3	pCi/g	0.77	389,000	246	1,584	No
118-K-1_P2_Deep_3	non-Rad	Chromium	7440-47-3	ug/kg	4,002	--e	246	--e	--e
118-K-1_P2_Deep_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,197	--b	246	--b	--b
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69	--e	246	--e	--e
118-K-1_P2_Deep_3	non-Rad	Copper	7440-50-8	ug/kg	13,000	129,998	246	529	Yes
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1	--e	246	--e	--e
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43	--e	246	--e	--e
118-K-1_P2_Deep_3	non-Rad	Iron	7439-89-6	ug/kg	2.22E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Deep_3	non-Rad	Lead	7439-92-1	ug/kg	2,370	--e	246	--e	--e
118-K-1_P2_Deep_3	non-Rad	Manganese	7439-96-5	ug/kg	276,000	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Mercury	7439-97-6	ug/kg	9.2	476	246	1.9	Yes
118-K-1_P2_Deep_3	non-Rad	Molybdenum	7439-98-7	ug/kg	338	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Nickel	7440-02-0	ug/kg	7,219	3.17E+06	246	12,911	No
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38	19,048	246	78	No
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--e	246	--e	--e
118-K-1_P2_Deep_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.82	--h	246	--h	--h
118-K-1_P2_Deep_3	Rad	Uranium-238	7440-61-1	pCi/g	0.70	--h	246	--h	--h
118-K-1_P2_Deep_3	non-Rad	Vanadium	7440-62-2	ug/kg	67,900	--b	246	--b	--b
118-K-1_P2_Deep_3	non-Rad	Zinc	7440-66-6	ug/kg	41,900	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.12E+06	--e	246	--e	--e
118-K-1_P2_Deep_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,110	20,000[d]	246	20,000	No
118-K-1_P2_Deep_4	non-Rad	Barium	7440-39-3	ug/kg	49,958	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Beryllium	7440-41-7	ug/kg	246	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Boron	7440-42-8	ug/kg	1,010	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Cadmium	7440-43-9	ug/kg	58	2,712	246	11	Yes
118-K-1_P2_Deep_4	Rad	Cesium-137	10045-97-3	pCi/g	0.50	389,000	246	1,584	No
118-K-1_P2_Deep_4	non-Rad	Chromium	7440-47-3	ug/kg	6,990	--e	246	--e	--e
118-K-1_P2_Deep_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,410	--b	246	--b	--b
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17	--e	246	--e	--e
118-K-1_P2_Deep_4	non-Rad	Copper	7440-50-8	ug/kg	13,100	129,998	246	529	Yes
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3	--e	246	--e	--e
118-K-1_P2_Deep_4	non-Rad	Iron	7439-89-6	ug/kg	2.16E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Deep_4	non-Rad	Lead	7439-92-1	ug/kg	3,380	--e	246	--e	--e
118-K-1_P2_Deep_4	non-Rad	Manganese	7439-96-5	ug/kg	285,000	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Nickel	7440-02-0	ug/kg	8,510	3.17E+06	246	12,911	No
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	No
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21	--e	246	--e	--e
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68	22,536	246	92	No
118-K-1_P2_Deep_4	Rad	Tritium[c]	10028-17-8	pCi/g	5.2	1,040	59	18	No
118-K-1_P2_Deep_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	--h	246	--h	--h
118-K-1_P2_Deep_4	Rad	Uranium-235	15117-96-1	pCi/g	0.041	--h	246	--h	--h
118-K-1_P2_Deep_4	Rad	Uranium-238	7440-61-1	pCi/g	0.71	--h	246	--h	--h
118-K-1_P2_Deep_4	non-Rad	Vanadium	7440-62-2	ug/kg	62,899	--b	246	--b	--b
118-K-1_P2_Deep_4	non-Rad	Zinc	7440-66-6	ug/kg	40,545	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_5	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	--e	246	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_5	non-Rad	Antimony	7440-36-0	ug/kg	237	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4	4,766	246	19	No
118-K-1_P2_Deep_5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,850	20,000[d]	246	20,000	No
118-K-1_P2_Deep_5	non-Rad	Barium	7440-39-3	ug/kg	72,194	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Beryllium	7440-41-7	ug/kg	327	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Boron	7440-42-8	ug/kg	794	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Cadmium	7440-43-9	ug/kg	106	2,712	246	11	Yes
118-K-1_P2_Deep_5	Rad	Carbon-14[c,g]	14762-75-5	pCi/g	2.7	--e	75	--e	--e
118-K-1_P2_Deep_5	Rad	Cesium-137	10045-97-3	pCi/g	0.092	389,000	246	1,584	No
118-K-1_P2_Deep_5	non-Rad	Chromium	7440-47-3	ug/kg	4,480	--e	246	--e	--e
118-K-1_P2_Deep_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,990	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Copper	7440-50-8	ug/kg	17,100	129,998	246	529	Yes
118-K-1_P2_Deep_5	non-Rad	Iron[c]	7439-89-6	ug/kg	3.40E+07	1.49E+07	75	198,570	Yes
118-K-1_P2_Deep_5	non-Rad	Lead	7439-92-1	ug/kg	2,370	--e	246	--e	--e
118-K-1_P2_Deep_5	non-Rad	Manganese	7439-96-5	ug/kg	413,000	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Nickel	7440-02-0	ug/kg	7,096	3.17E+06	246	12,911	No
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12	19,048	246	78	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,110	2.00E+06	246	2.00E+06	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	53,100	2.00E+06	246	2.00E+06	No
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842	--b	246	--b	--b
118-K-1_P2_Deep_5	non-Rad	Zinc	7440-66-6	ug/kg	55,271	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_6	non-Rad	Aluminum	7429-90-5	ug/kg	6.25E+06	--e	246	--e	--e
118-K-1_P2_Deep_6	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,120	20,000[d]	246	20,000	No
118-K-1_P2_Deep_6	non-Rad	Barium	7440-39-3	ug/kg	67,400	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Boron	7440-42-8	ug/kg	667	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Cadmium	7440-43-9	ug/kg	118	2,712	246	11	Yes
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	246	0.23	Yes
118-K-1_P2_Deep_6	Rad	Cesium-137	10045-97-3	pCi/g	0.084	389,000	246	1,584	No
118-K-1_P2_Deep_6	non-Rad	Chromium	7440-47-3	ug/kg	5,380	--e	246	--e	--e
118-K-1_P2_Deep_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,200	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Copper	7440-50-8	ug/kg	17,780	129,998	246	529	Yes
118-K-1_P2_Deep_6	non-Rad	Iron	7439-89-6	ug/kg	3.04E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Deep_6	non-Rad	Lead	7439-92-1	ug/kg	3,266	--e	246	--e	--e
118-K-1_P2_Deep_6	non-Rad	Manganese	7439-96-5	ug/kg	391,000	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Molybdenum	7439-98-7	ug/kg	327	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Nickel	7440-02-0	ug/kg	7,810	3.17E+06	246	12,911	No
118-K-1_P2_Deep_6	non-Rad	Vanadium	7440-62-2	ug/kg	82,600	--b	246	--b	--b
118-K-1_P2_Deep_6	non-Rad	Zinc	7440-66-6	ug/kg	48,600	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.24E+06	--e	246	--e	--e
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8	92,105	246	375	No
118-K-1_P2_Deep_7	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,820	20,000[d]	246	20,000	No
118-K-1_P2_Deep_7	non-Rad	Barium	7440-39-3	ug/kg	53,701	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Beryllium	7440-41-7	ug/kg	248	--b	246	--b	--b
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10	389,000	246	1,584	No
118-K-1_P2_Deep_7	non-Rad	Chromium	7440-47-3	ug/kg	8,465	--e	246	--e	--e
118-K-1_P2_Deep_7	non-Rad	Cobalt	7440-48-4	ug/kg	10,401	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Copper	7440-50-8	ug/kg	17,328	129,998	246	529	Yes
118-K-1_P2_Deep_7	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Deep_7	non-Rad	Lead	7439-92-1	ug/kg	3,270	--e	246	--e	--e
118-K-1_P2_Deep_7	non-Rad	Manganese	7439-96-5	ug/kg	360,000	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18	476	246	1.9	Yes
118-K-1_P2_Deep_7	non-Rad	Nickel	7440-02-0	ug/kg	8,156	3.17E+06	246	12,911	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	No
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--e	246	--e	--e
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3	22,536	246	92	No
118-K-1_P2_Deep_7	Rad	Tritium[c]	10028-17-8	pCi/g	7.5	1,040	53	20	No
118-K-1_P2_Deep_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.46	--h	246	--h	--h
118-K-1_P2_Deep_7	Rad	Uranium-238	7440-61-1	pCi/g	0.74	--h	246	--h	--h
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461	--b	246	--b	--b
118-K-1_P2_Deep_7	non-Rad	Zinc	7440-66-6	ug/kg	55,780	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.81E+06	--e	246	--e	--e
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28	92,105	246	375	No
118-K-1_P2_Deep_8	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,093	20,000[d]	246	20,000	No
118-K-1_P2_Deep_8	non-Rad	Barium	7440-39-3	ug/kg	67,500	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Beryllium	7440-41-7	ug/kg	334	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Boron	7440-42-8	ug/kg	693	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Cadmium	7440-43-9	ug/kg	103	2,712	246	11	Yes
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84	57	246	0.23	Yes
118-K-1_P2_Deep_8	Rad	Cesium-137	10045-97-3	pCi/g	0.29	389,000	246	1,584	No
118-K-1_P2_Deep_8	non-Rad	Chromium	7440-47-3	ug/kg	4,802	--e	246	--e	--e
118-K-1_P2_Deep_8	non-Rad	Cobalt	7440-48-4	ug/kg	11,230	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Copper	7440-50-8	ug/kg	18,500	129,998	246	529	Yes
118-K-1_P2_Deep_8	non-Rad	Iron[c]	7439-89-6	ug/kg	3.60E+07	1.49E+07	38	389,940	Yes
118-K-1_P2_Deep_8	non-Rad	Lead	7439-92-1	ug/kg	3,744	--e	246	--e	--e
118-K-1_P2_Deep_8	non-Rad	Manganese	7439-96-5	ug/kg	515,801	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Nickel	7440-02-0	ug/kg	8,390	3.17E+06	246	12,911	No
118-K-1_P2_Deep_8	non-Rad	Selenium	7782-49-2	ug/kg	268	13,933	246	57	Yes
118-K-1_P2_Deep_8	Rad	Tritium[c]	10028-17-8	pCi/g	5.8	1,040	38	27	No
118-K-1_P2_Deep_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	--h	246	--h	--h
118-K-1_P2_Deep_8	Rad	Uranium-238	7440-61-1	pCi/g	0.75	--h	246	--h	--h
118-K-1_P2_Deep_8	non-Rad	Vanadium	7440-62-2	ug/kg	83,544	--b	246	--b	--b
118-K-1_P2_Deep_8	non-Rad	Zinc	7440-66-6	ug/kg	52,500	5.04E+06	246	20,521	Yes
118-K-1_P2_Deep_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	4.30E+06	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	3,040	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,910	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	41,900	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	183	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,260	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	79	2,712	1.0	2,712	No
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3	57	1.0	57	No
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11	389,000	1.0	389,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	6,030	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	5,300	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	13,600	129,998	1.0	129,998	No
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	1.77E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	8,410	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	232,000	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203	476	1.0	476	No
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,550	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29	22,536	1.0	22,536	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.54	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	44,900	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	37,200	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Deep_Focused_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.61E+06	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,130	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	56,100	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	228	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Boron	7440-42-8	ug/kg	791	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	69	2,712	1.0	2,712	No
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14	57	1.0	57	No
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4	389,000	1.0	389,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	13,000	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,420	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	13,000	129,998	1.0	129,998	No
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	non-Rad	Iron	7439-89-6	ug/kg	2.08E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Deep_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,870	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	256,000	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	258	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	11,700	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15	22,536	1.0	22,536	No
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1	1,040	1.0	1,040	No
118-K-1_P2_Deep_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.65	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.041	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.61	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	67,300	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	42,300	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Deep_Focused_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.45E+06	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	1.0	92,105	No
118-K-1_P2_Deep_Focused_7	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,080	20,000[d]	1.0	20,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Barium	7440-39-3	ug/kg	86,500	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Beryllium	7440-41-7	ug/kg	330	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Boron	7440-42-8	ug/kg	523	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Cadmium	7440-43-9	ug/kg	78	2,712	1.0	2,712	No
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36	389,000	1.0	389,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Chromium	7440-47-3	ug/kg	6,900	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	non-Rad	Cobalt	7440-48-4	ug/kg	6,460	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	non-Rad	Copper	7440-50-8	ug/kg	17,600	129,998	1.0	129,998	No
118-K-1_P2_Deep_Focused_7	non-Rad	Iron	7439-89-6	ug/kg	2.98E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Deep_Focused_7	non-Rad	Lead	7439-92-1	ug/kg	3,290	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	non-Rad	Manganese	7439-96-5	ug/kg	345,000	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Molybdenum	7439-98-7	ug/kg	394	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Nickel	7440-02-0	ug/kg	9,130	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4	19,048	1.0	19,048	No
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2	--e	1.0	--e	--e
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12	22,536	1.0	22,536	No
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30	1,040	1.0	1,040	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_Focused_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_7	Rad	Uranium-238	7440-61-1	pCi/g	0.62	--h	1.0	--h	--h
118-K-1_P2_Deep_Focused_7	non-Rad	Vanadium	7440-62-2	ug/kg	70,500	--b	1.0	--b	--b
118-K-1_P2_Deep_Focused_7	non-Rad	Zinc	7440-66-6	ug/kg	47,300	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	5.76E+06	--e	246	--e	--e
118-K-1_P2_Shallow_1	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,420	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	55,474	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	251	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,458	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	77	2,712	246	11	Yes
118-K-1_P2_Shallow_1	Rad	Carbon-14[c,g]	14762-75-5	pCi/g	4.5	--e	42	--e	--e
118-K-1_P2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.073	389,000	246	1,584	No
118-K-1_P2_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,290	--e	246	--e	--e
118-K-1_P2_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,406	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	13,800	129,998	246	529	Yes
118-K-1_P2_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.07E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	3,360	--e	246	--e	--e
118-K-1_P2_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	295,000	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	423	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	7,140	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_1	Rad	Tritium[c]	10028-17-8	pCi/g	6.5	1,040	42	25	No
118-K-1_P2_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,364	--b	246	--b	--b
118-K-1_P2_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,300	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_10	non-Rad	Aluminum	7429-90-5	ug/kg	9.80E+06	--e	246	--e	--e
118-K-1_P2_Shallow_10	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,370	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_10	non-Rad	Barium	7440-39-3	ug/kg	76,559	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Beryllium	7440-41-7	ug/kg	401	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Boron	7440-42-8	ug/kg	1,659	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Cadmium	7440-43-9	ug/kg	121	2,712	246	11	Yes
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	Yes
118-K-1_P2_Shallow_10	Rad	Cesium-137	10045-97-3	pCi/g	0.11	389,000	246	1,584	No
118-K-1_P2_Shallow_10	non-Rad	Chromium	7440-47-3	ug/kg	11,600	--e	246	--e	--e
118-K-1_P2_Shallow_10	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Copperf	7440-50-8	ug/kg	22,649	129,998	9.6	13,598	Yes
118-K-1_P2_Shallow_10	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_10	non-Rad	Lead	7439-92-1	ug/kg	4,510	--e	246	--e	--e
118-K-1_P2_Shallow_10	non-Rad	Manganese	7439-96-5	ug/kg	452,510	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Nickel	7440-02-0	ug/kg	10,800	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_10	non-Rad	Nitrate	14797-55-8	ug/kg	44,542	--b	246	--b	--b
118-K-1_P2_Shallow_10	Rad	Uranium-233/234	U-233/234	pCi/g	0.72	--h	246	--h	--h
118-K-1_P2_Shallow_10	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--h	246	--h	--h
118-K-1_P2_Shallow_10	non-Rad	Vanadium	7440-62-2	ug/kg	83,071	--b	246	--b	--b
118-K-1_P2_Shallow_10	non-Rad	Zinc	7440-66-6	ug/kg	56,346	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11A	non-Rad	Aluminum	7429-90-5	ug/kg	7.97E+06	--e	246	--e	--e
118-K-1_P2_Shallow_11A	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,973	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11A	non-Rad	Barium	7440-39-3	ug/kg	75,402	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Beryllium	7440-41-7	ug/kg	311	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Boron	7440-42-8	ug/kg	1,847	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Cadmium	7440-43-9	ug/kg	124	2,712	246	11	Yes
118-K-1_P2_Shallow_11A	Rad	Cesium-137	10045-97-3	pCi/g	0.14	389,000	246	1,584	No
118-K-1_P2_Shallow_11A	non-Rad	Chromium	7440-47-3	ug/kg	9,103	--e	246	--e	--e
118-K-1_P2_Shallow_11A	non-Rad	Cobalt	7440-48-4	ug/kg	8,040	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Copper	7440-50-8	ug/kg	18,000	129,998	246	529	Yes
118-K-1_P2_Shallow_11A	non-Rad	Iron	7439-89-6	ug/kg	2.64E+07	1.49E+07	246	60,725	Yes

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_11A	non-Rad	Lead	7439-92-1	ug/kg	5,321	--e	246	--e	--e
118-K-1_P2_Shallow_11A	non-Rad	Manganese	7439-96-5	ug/kg	351,000	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Nickel	7440-02-0	ug/kg	10,657	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11A	non-Rad	Nitrate	14797-55-8	ug/kg	121,000	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Vanadium	7440-62-2	ug/kg	71,900	--b	246	--b	--b
118-K-1_P2_Shallow_11A	non-Rad	Zinc	7440-66-6	ug/kg	56,000	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11B	non-Rad	Aluminum	7429-90-5	ug/kg	1.06E+07	--e	246	--e	--e
118-K-1_P2_Shallow_11B	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,228	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11B	non-Rad	Barium	7440-39-3	ug/kg	87,080	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Beryllium	7440-41-7	ug/kg	383	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Boron	7440-42-8	ug/kg	2,290	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Cadmium	7440-43-9	ug/kg	136	2,712	246	11	Yes
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	Yes
118-K-1_P2_Shallow_11B	Rad	Cesium-137	10045-97-3	pCi/g	0.099	389,000	246	1,584	No
118-K-1_P2_Shallow_11B	non-Rad	Chromium	7440-47-3	ug/kg	12,715	--e	246	--e	--e
118-K-1_P2_Shallow_11B	non-Rad	Cobalt	7440-48-4	ug/kg	7,860	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Copper	7440-50-8	ug/kg	17,700	129,998	246	529	Yes
118-K-1_P2_Shallow_11B	non-Rad	Iron	7439-89-6	ug/kg	2.54E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11B	non-Rad	Lead	7439-92-1	ug/kg	5,250	--e	246	--e	--e
118-K-1_P2_Shallow_11B	non-Rad	Manganese	7439-96-5	ug/kg	404,000	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Nickel	7440-02-0	ug/kg	12,000	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11B	non-Rad	Nitrate	14797-55-8	ug/kg	390,793	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Vanadium	7440-62-2	ug/kg	69,400	--b	246	--b	--b
118-K-1_P2_Shallow_11B	non-Rad	Zinc	7440-66-6	ug/kg	57,921	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07	--e	246	--e	--e
118-K-1_P2_Shallow_11C	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,653	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11C	non-Rad	Barium	7440-39-3	ug/kg	96,400	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Beryllium	7440-41-7	ug/kg	433	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Boron	7440-42-8	ug/kg	2,414	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Cadmium	7440-43-9	ug/kg	146	2,712	246	11	Yes
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87	57	246	0.23	Yes
118-K-1_P2_Shallow_11C	Rad	Cesium-137	10045-97-3	pCi/g	0.095	389,000	246	1,584	No
118-K-1_P2_Shallow_11C	non-Rad	Chromium	7440-47-3	ug/kg	14,900	--e	246	--e	--e
118-K-1_P2_Shallow_11C	non-Rad	Cobalt	7440-48-4	ug/kg	7,710	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Copper	7440-50-8	ug/kg	19,453	129,998	246	529	Yes
118-K-1_P2_Shallow_11C	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11C	non-Rad	Lead	7439-92-1	ug/kg	5,085	--e	246	--e	--e
118-K-1_P2_Shallow_11C	non-Rad	Manganese	7439-96-5	ug/kg	441,000	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39	476	246	1.9	Yes
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Nickel	7440-02-0	ug/kg	14,400	3.17E+06	246	12,911	Yes
118-K-1_P2_Shallow_11C	non-Rad	Nitrate	14797-55-8	ug/kg	169,367	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Vanadium	7440-62-2	ug/kg	65,680	--b	246	--b	--b
118-K-1_P2_Shallow_11C	non-Rad	Zinc	7440-66-6	ug/kg	49,600	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11D	non-Rad	Aluminum	7429-90-5	ug/kg	1.17E+07	--e	246	--e	--e
118-K-1_P2_Shallow_11D	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,120	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11D	non-Rad	Barium	7440-39-3	ug/kg	89,100	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Beryllium	7440-41-7	ug/kg	395	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Boron	7440-42-8	ug/kg	2,320	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Cadmium	7440-43-9	ug/kg	162	2,712	246	11	Yes
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_11D	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	246	1,584	No
118-K-1_P2_Shallow_11D	non-Rad	Chromium	7440-47-3	ug/kg	12,600	--e	246	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_11D	non-Rad	Cobalt	7440-48-4	ug/kg	7,275	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Copper	7440-50-8	ug/kg	14,940	129,998	246	529	Yes
118-K-1_P2_Shallow_11D	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11D	non-Rad	Lead	7439-92-1	ug/kg	5,756	--e	246	--e	--e
118-K-1_P2_Shallow_11D	non-Rad	Manganese	7439-96-5	ug/kg	409,000	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Nickel	7440-02-0	ug/kg	11,600	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11D	non-Rad	Nitrate	14797-55-8	ug/kg	148,000	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Vanadium	7440-62-2	ug/kg	62,900	--b	246	--b	--b
118-K-1_P2_Shallow_11D	non-Rad	Zinc	7440-66-6	ug/kg	49,719	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11E	non-Rad	Aluminum	7429-90-5	ug/kg	1.12E+07	--e	246	--e	--e
118-K-1_P2_Shallow_11E	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,772	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11E	non-Rad	Barium	7440-39-3	ug/kg	94,900	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Beryllium	7440-41-7	ug/kg	379	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Boron	7440-42-8	ug/kg	2,315	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Cadmium	7440-43-9	ug/kg	146	2,712	246	11	Yes
118-K-1_P2_Shallow_11E	Rad	Carbon-14[c,g]	14762-75-5	pCi/g	2.1	--e	42	--e	--e
118-K-1_P2_Shallow_11E	Rad	Cesium-137	10045-97-3	pCi/g	0.14	389,000	246	1,584	No
118-K-1_P2_Shallow_11E	non-Rad	Chromium	7440-47-3	ug/kg	12,619	--e	246	--e	--e
118-K-1_P2_Shallow_11E	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Copperf	7440-50-8	ug/kg	22,325	129,998	42	3,117	Yes
118-K-1_P2_Shallow_11E	non-Rad	Iron	7439-89-6	ug/kg	2.68E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11E	non-Rad	Lead	7439-92-1	ug/kg	6,070	--e	246	--e	--e
118-K-1_P2_Shallow_11E	non-Rad	Manganese	7439-96-5	ug/kg	431,889	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Mercury	7439-97-6	ug/kg	9.3	476	246	1.9	Yes
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Nickel	7440-02-0	ug/kg	11,100	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11E	non-Rad	Nitrate	14797-55-8	ug/kg	56,000	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Vanadium	7440-62-2	ug/kg	68,495	--b	246	--b	--b
118-K-1_P2_Shallow_11E	non-Rad	Zinc	7440-66-6	ug/kg	54,300	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11F	non-Rad	Aluminum	7429-90-5	ug/kg	9.42E+06	--e	246	--e	--e
118-K-1_P2_Shallow_11F	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,379	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11F	non-Rad	Barium	7440-39-3	ug/kg	83,400	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Beryllium	7440-41-7	ug/kg	316	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Boron	7440-42-8	ug/kg	2,210	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Cadmium	7440-43-9	ug/kg	149	2,712	246	11	Yes
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	Yes
118-K-1_P2_Shallow_11F	Rad	Cesium-137	10045-97-3	pCi/g	0.22	389,000	246	1,584	No
118-K-1_P2_Shallow_11F	non-Rad	Chromium	7440-47-3	ug/kg	11,200	--e	246	--e	--e
118-K-1_P2_Shallow_11F	non-Rad	Cobalt	7440-48-4	ug/kg	8,056	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Copper	7440-50-8	ug/kg	16,300	129,998	246	529	Yes
118-K-1_P2_Shallow_11F	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11F	non-Rad	Lead	7439-92-1	ug/kg	5,510	--e	246	--e	--e
118-K-1_P2_Shallow_11F	non-Rad	Manganese	7439-96-5	ug/kg	374,448	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22	476	246	1.9	Yes
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Nickel	7440-02-0	ug/kg	11,300	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11F	non-Rad	Nitrate	14797-55-8	ug/kg	65,100	--b	246	--b	--b
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7	1,040	246	4.2	No
118-K-1_P2_Shallow_11F	non-Rad	Vanadium	7440-62-2	ug/kg	77,500	--b	246	--b	--b
118-K-1_P2_Shallow_11F	non-Rad	Zinc	7440-66-6	ug/kg	51,655	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11G	non-Rad	Aluminum	7429-90-5	ug/kg	7.17E+06	--e	246	--e	--e
118-K-1_P2_Shallow_11G	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,690	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11G	non-Rad	Barium	7440-39-3	ug/kg	60,300	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Beryllium	7440-41-7	ug/kg	290	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Boron	7440-42-8	ug/kg	1,340	--b	246	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_11G	non-Rad	Cadmium	7440-43-9	ug/kg	109	2,712	246	11	Yes
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9	57	246	0.23	Yes
118-K-1_P2_Shallow_11G	Rad	Cesium-137	10045-97-3	pCi/g	0.16	389,000	246	1,584	No
118-K-1_P2_Shallow_11G	non-Rad	Chromium	7440-47-3	ug/kg	8,117	--e	246	--e	--e
118-K-1_P2_Shallow_11G	non-Rad	Cobalt	7440-48-4	ug/kg	8,360	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Copper	7440-50-8	ug/kg	16,781	129,998	246	529	Yes
118-K-1_P2_Shallow_11G	non-Rad	Iron	7439-89-6	ug/kg	2.83E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11G	non-Rad	Lead	7439-92-1	ug/kg	4,750	--e	246	--e	--e
118-K-1_P2_Shallow_11G	non-Rad	Manganese	7439-96-5	ug/kg	377,844	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Nickel	7440-02-0	ug/kg	9,760	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11G	non-Rad	Nitrate	14797-55-8	ug/kg	42,833	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361	--b	246	--b	--b
118-K-1_P2_Shallow_11G	non-Rad	Zinc	7440-66-6	ug/kg	55,130	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_11H	non-Rad	Aluminum	7429-90-5	ug/kg	6.51E+06	--e	246	--e	--e
118-K-1_P2_Shallow_11H	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,774	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_11H	non-Rad	Barium	7440-39-3	ug/kg	55,500	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Beryllium	7440-41-7	ug/kg	256	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Boron	7440-42-8	ug/kg	1,258	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Cadmium	7440-43-9	ug/kg	103	2,712	246	11	Yes
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6	57	246	0.23	Yes
118-K-1_P2_Shallow_11H	Rad	Cesium-137	10045-97-3	pCi/g	0.27	389,000	246	1,584	No
118-K-1_P2_Shallow_11H	non-Rad	Chromium	7440-47-3	ug/kg	6,938	--e	246	--e	--e
118-K-1_P2_Shallow_11H	non-Rad	Cobalt	7440-48-4	ug/kg	7,810	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Copper	7440-50-8	ug/kg	16,500	129,998	246	529	Yes
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29	--e	246	--e	--e
118-K-1_P2_Shallow_11H	non-Rad	Iron	7439-89-6	ug/kg	2.71E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_11H	non-Rad	Lead	7439-92-1	ug/kg	7,929	--e	246	--e	--e
118-K-1_P2_Shallow_11H	non-Rad	Manganese	7439-96-5	ug/kg	344,000	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Nickel	7440-02-0	ug/kg	9,390	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_11H	non-Rad	Nitrate	14797-55-8	ug/kg	21,000	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	--b	246	--b	--b
118-K-1_P2_Shallow_11H	non-Rad	Zinc	7440-66-6	ug/kg	55,900	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	--e	246	--e	--e
118-K-1_P2_Shallow_2	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,870	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	56,878	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	285	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,390	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	84	2,712	246	11	Yes
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0	57	246	0.23	Yes
118-K-1_P2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.097	389,000	246	1,584	No
118-K-1_P2_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,523	--e	246	--e	--e
118-K-1_P2_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,386	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	13,685	129,998	246	529	Yes
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23	--e	246	--e	--e
118-K-1_P2_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,338	--e	246	--e	--e
118-K-1_P2_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	309,188	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	375	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,841	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.89	--h	246	--h	--h
118-K-1_P2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.66	--h	246	--h	--h
118-K-1_P2_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	54,600	--b	246	--b	--b
118-K-1_P2_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	40,000	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.96E+06	--e	246	--e	--e

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,875	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	62,560	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	305	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,659	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	85	2,712	246	11	Yes
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,180	--e	246	--e	--e
118-K-1_P2_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	6,609	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,900	129,998	246	529	Yes
118-K-1_P2_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,339	--e	246	--e	--e
118-K-1_P2_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	316,000	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	444	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	9,290	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.014	--e	246	--e	--e
118-K-1_P2_Shallow_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	--h	246	--h	--h
118-K-1_P2_Shallow_3	Rad	Uranium-238	7440-61-1	pCi/g	0.76	--h	246	--h	--h
118-K-1_P2_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	57,548	--b	246	--b	--b
118-K-1_P2_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	43,400	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.79E+06	--e	246	--e	--e
118-K-1_P2_Shallow_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,167	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	53,000	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	277	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	1,020	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	2,712	246	11	Yes
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86	57	246	0.23	Yes
118-K-1_P2_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	6,920	--e	246	--e	--e
118-K-1_P2_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,321	--b	246	--b	--b
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27	--e	246	--e	--e
118-K-1_P2_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	14,100	129,998	246	529	Yes
118-K-1_P2_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	4,059	--e	246	--e	--e
118-K-1_P2_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	291,000	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	316	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	7,600	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.64	--h	246	--h	--h
118-K-1_P2_Shallow_4	Rad	Uranium-235	15117-96-1	pCi/g	0.061	--h	246	--h	--h
118-K-1_P2_Shallow_4	Rad	Uranium-238	7440-61-1	pCi/g	0.60	--h	246	--h	--h
118-K-1_P2_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,252	--b	246	--b	--b
118-K-1_P2_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	41,900	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	8.45E+06	--e	246	--e	--e
118-K-1_P2_Shallow_5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,930	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	73,049	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	346	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,610	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	93	2,712	246	11	Yes
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79	57	246	0.23	Yes
118-K-1_P2_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	0.23	389,000	246	1,584	No
118-K-1_P2_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	7,592	--e	246	--e	--e
118-K-1_P2_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,489	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,300	129,998	246	529	Yes
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32	--e	246	--e	--e
118-K-1_P2_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	3.01E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	3,670	--e	246	--e	--e
118-K-1_P2_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	395,939	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58	476	246	1.9	Yes

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	8,469	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	28,400	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,100	2.00E+06	246	2.00E+06	No
118-K-1_P2_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	81,200	--b	246	--b	--b
118-K-1_P2_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	51,700	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_6	non-Rad	Aluminum	7429-90-5	ug/kg	7.45E+06	--e	246	--e	--e
118-K-1_P2_Shallow_6	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,540	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_6	non-Rad	Barium	7440-39-3	ug/kg	114,051	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Beryllium	7440-41-7	ug/kg	345	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Boron	7440-42-8	ug/kg	957	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Cadmium	7440-43-9	ug/kg	91	2,712	246	11	Yes
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81	57	246	0.23	Yes
118-K-1_P2_Shallow_6	Rad	Cesium-137	10045-97-3	pCi/g	0.10	389,000	246	1,584	No
118-K-1_P2_Shallow_6	non-Rad	Chromium	7440-47-3	ug/kg	6,250	--e	246	--e	--e
118-K-1_P2_Shallow_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,456	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Copper	7440-50-8	ug/kg	18,432	129,998	246	529	Yes
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20	--e	246	--e	--e
118-K-1_P2_Shallow_6	non-Rad	Iron	7439-89-6	ug/kg	2.95E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_6	non-Rad	Lead	7439-92-1	ug/kg	4,466	--e	246	--e	--e
118-K-1_P2_Shallow_6	non-Rad	Manganese	7439-96-5	ug/kg	392,000	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Molybdenum	7439-98-7	ug/kg	390	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Nickel	7440-02-0	ug/kg	8,810	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_6	Rad	Tritium[c]	10028-17-8	pCi/g	8.3	1,040	89	12	No
118-K-1_P2_Shallow_6	non-Rad	Vanadium	7440-62-2	ug/kg	79,215	--b	246	--b	--b
118-K-1_P2_Shallow_6	non-Rad	Zinc	7440-66-6	ug/kg	56,100	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_7	non-Rad	Aluminum	7429-90-5	ug/kg	9.46E+06	--e	246	--e	--e
118-K-1_P2_Shallow_7	non-Rad	Antimony	7440-36-0	ug/kg	16,300	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,546	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_7	non-Rad	Barium	7440-39-3	ug/kg	73,740	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Beryllium	7440-41-7	ug/kg	365	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Boron	7440-42-8	ug/kg	1,840	--b	246	--b	--b
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	Yes
118-K-1_P2_Shallow_7	Rad	Cesium-137	10045-97-3	pCi/g	0.26	389,000	246	1,584	No
118-K-1_P2_Shallow_7	non-Rad	Chromium	7440-47-3	ug/kg	10,300	--e	246	--e	--e
118-K-1_P2_Shallow_7	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Copperf	7440-50-8	ug/kg	22,500	129,998	72	1,812	Yes
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Iron	7439-89-6	ug/kg	2.91E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142	--e	246	--e	--e
118-K-1_P2_Shallow_7	non-Rad	Manganese	7439-96-5	ug/kg	437,260	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129	476	246	1.9	Yes
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Nickel	7440-02-0	ug/kg	11,900	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.69	--h	246	--h	--h
118-K-1_P2_Shallow_7	Rad	Uranium-238	7440-61-1	pCi/g	0.73	--h	246	--h	--h
118-K-1_P2_Shallow_7	non-Rad	Vanadium	7440-62-2	ug/kg	79,100	--b	246	--b	--b
118-K-1_P2_Shallow_7	non-Rad	Zinc[c]	7440-66-6	ug/kg	77,182	5.04E+06	72	70,266	Yes
118-K-1_P2_Shallow_8	non-Rad	Aluminum	7429-90-5	ug/kg	7.63E+06	--e	246	--e	--e
118-K-1_P2_Shallow_8	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,422	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_8	non-Rad	Barium	7440-39-3	ug/kg	78,248	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Beryllium	7440-41-7	ug/kg	377	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Boron	7440-42-8	ug/kg	1,020	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Cadmium	7440-43-9	ug/kg	116	2,712	246	11	Yes
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	Yes

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_8	Rad	Cesium-137	10045-97-3	pCi/g	0.15	389,000	246	1,584	No
118-K-1_P2_Shallow_8	non-Rad	Chromium	7440-47-3	ug/kg	8,115	--e	246	--e	--e
118-K-1_P2_Shallow_8	non-Rad	Cobalt	7440-48-4	ug/kg	13,365	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Copper	7440-50-8	ug/kg	20,000	129,998	246	529	Yes
118-K-1_P2_Shallow_8	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_8	non-Rad	Lead	7439-92-1	ug/kg	6,672	--e	246	--e	--e
118-K-1_P2_Shallow_8	non-Rad	Manganese	7439-96-5	ug/kg	453,000	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Molybdenum	7439-98-7	ug/kg	435	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Nickel	7440-02-0	ug/kg	11,306	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4	1,040	246	4.2	No
118-K-1_P2_Shallow_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.76	--h	246	--h	--h
118-K-1_P2_Shallow_8	Rad	Uranium-238	7440-61-1	pCi/g	0.49	--h	246	--h	--h
118-K-1_P2_Shallow_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,026	--b	246	--b	--b
118-K-1_P2_Shallow_8	non-Rad	Zinc	7440-66-6	ug/kg	58,300	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_9	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	--e	246	--e	--e
118-K-1_P2_Shallow_9	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,100	20,000[d]	246	20,000	No
118-K-1_P2_Shallow_9	non-Rad	Barium	7440-39-3	ug/kg	84,500	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Beryllium	7440-41-7	ug/kg	369	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Boron	7440-42-8	ug/kg	2,630	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Cadmium	7440-43-9	ug/kg	156	2,712	246	11	Yes
118-K-1_P2_Shallow_9	Rad	Cesium-137	10045-97-3	pCi/g	0.12	389,000	246	1,584	No
118-K-1_P2_Shallow_9	non-Rad	Chromium	7440-47-3	ug/kg	13,000	--e	246	--e	--e
118-K-1_P2_Shallow_9	non-Rad	Cobalt	7440-48-4	ug/kg	8,484	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Copper	7440-50-8	ug/kg	17,100	129,998	246	529	Yes
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053	--e	246	--e	--e
118-K-1_P2_Shallow_9	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	1.49E+07	246	60,725	Yes
118-K-1_P2_Shallow_9	non-Rad	Lead	7439-92-1	ug/kg	5,349	--e	246	--e	--e
118-K-1_P2_Shallow_9	non-Rad	Manganese	7439-96-5	ug/kg	400,862	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21	476	246	1.9	Yes
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Nickel	7440-02-0	ug/kg	11,733	3.17E+06	246	12,911	No
118-K-1_P2_Shallow_9	non-Rad	Nitrate	14797-55-8	ug/kg	231,145	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--b	246	--b	--b
118-K-1_P2_Shallow_9	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	--h	246	--h	--h
118-K-1_P2_Shallow_9	Rad	Uranium-238	7440-61-1	pCi/g	0.91	--h	246	--h	--h
118-K-1_P2_Shallow_9	non-Rad	Vanadium	7440-62-2	ug/kg	69,800	--b	246	--b	--b
118-K-1_P2_Shallow_9	non-Rad	Zinc	7440-66-6	ug/kg	55,577	5.04E+06	246	20,521	Yes
118-K-1_P2_Shallow_Focused_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.04E+06	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	369	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,980	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	80,500	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	318	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Boron	7440-42-8	ug/kg	853	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	116	2,712	1.0	2,712	No
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	17,400	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,820	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,400	129,998	1.0	129,998	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	2,690	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	464,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.78	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	53,000	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Aluminum	7429-90-5	ug/kg	4.41E+06	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_4	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,560	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	52,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	285	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	73	2,712	1.0	2,712	No
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1	57	1.0	57	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,390	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,690	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	129,998	1.0	129,998	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Iron	7439-89-6	ug/kg	2.74E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,020	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	316,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	261	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,640	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.33	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.37	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	44,300	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Aluminum	7429-90-5	ug/kg	5.27E+06	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_5	non-Rad	Arsenic[c]	7440-38-2	ug/kg	1,600	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	55,700	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	196	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Boron	7440-42-8	ug/kg	483	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	66	2,712	1.0	2,712	No
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	1.0	57	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,900	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,390	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	14,200	129,998	1.0	129,998	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	1,630	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	293,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	328	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	5,780	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-233/234	U-233/234	pCi/g	0.37	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-235	15117-96-1	pCi/g	0.026	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-238	7440-61-1	pCi/g	0.42	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	70,300	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	42,300	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Aluminum	7429-90-5	ug/kg	9.10E+06	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_6	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,740	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	86,200	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	302	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Boron	7440-42-8	ug/kg	1,390	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	Rad	Cesium-137	10045-97-3	pCi/g	0.63	389,000	1.0	389,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	6,710	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	17,200	129,998	1.0	129,998	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Iron	7439-89-6	ug/kg	1.80E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	4,810	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	315,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12	1,040	1.0	1,040	No
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-233/234	U-233/234	pCi/g	0.55	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-238	7440-61-1	pCi/g	0.82	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	43,900	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	40,300	5.04E+06	1.0	5.04E+06	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.68E+06	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_8	non-Rad	Arsenic[c]	7440-38-2	ug/kg	4,160	20,000[d]	1.0	20,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Barium	7440-39-3	ug/kg	67,700	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Beryllium	7440-41-7	ug/kg	280	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Boron	7440-42-8	ug/kg	796	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Cadmium	7440-43-9	ug/kg	102	2,712	1.0	2,712	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Chromium	7440-47-3	ug/kg	7,040	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_8	non-Rad	Cobalt	7440-48-4	ug/kg	7,220	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Copper	7440-50-8	ug/kg	13,400	129,998	1.0	129,998	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Iron	7439-89-6	ug/kg	2.73E+07	1.49E+07	1.0	1.49E+07	Yes
118-K-1_P2_Shallow_Focused_8	non-Rad	Lead	7439-92-1	ug/kg	3,480	--e	1.0	--e	--e
118-K-1_P2_Shallow_Focused_8	non-Rad	Manganese	7439-96-5	ug/kg	369,000	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Molybdenum	7439-98-7	ug/kg	428	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Nickel	7440-02-0	ug/kg	8,980	3.17E+06	1.0	3.17E+06	No
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.35	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-238	7440-61-1	pCi/g	0.40	--h	1.0	--h	--h
118-K-1_P2_Shallow_Focused_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,100	--b	1.0	--b	--b
118-K-1_P2_Shallow_Focused_8	non-Rad	Zinc	7440-66-6	ug/kg	48,300	5.04E+06	1.0	5.04E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,570	20,000[d]	6.2	20,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,251	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	449	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,273	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,530	--e	6.2	--e	--e
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,072	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,296	129,998	6.2	21,049	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Fluoride	16984-48-8	ug/kg	1,910	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108	6,000[f]	6.2	6,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893	--e	6.2	--e	--e
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,937	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,189	3.17E+06	6.2	513,490	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	10,319	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120	13,933	6.2	2,256	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	561	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,017	--b	6.2	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	55,448	5.04E+06	6.2	816,172	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	130	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,800	20,000[d]	1.0	20,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	101,000	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	420	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	87	2,712	1.0	2,712	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	6,400	--e	1.0	--e	--e
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,600	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900	129,998	1.0	129,998	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	3,200	--e	1.0	--e	--e
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	316,000	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	8,700	3.17E+06	1.0	3.17E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000	13,933	1.0	13,933	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	82	12,526	1.0	12,526	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	850	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600	--b	1.0	--b	--b
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	62,600	5.04E+06	1.0	5.04E+06	No
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,700	20,000[d]	1.0	20,000	No
128-K-1_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	71,500	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	350	2,712	1.0	2,712	No
128-K-1_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,500	--e	1.0	--e	--e
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480	6,000[f]	1.0	6,000	No
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800	--e	1.0	--e	--e
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30	476	1.0	476	No
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000	--b	1.0	--b	--b
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800	13,933	1.0	13,933	No
128-K-1_Shallow_Focused	non-Rad	Total petroleum hydrocarbons	TPH	ug/kg	14,400	2.00E+06	1.0	2.00E+06	No
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.07E+06	--e	74	--e	--e
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	500	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,263	20,000[d]	74	20,000	No
128-K-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	68,960	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	519	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,928	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	153	2,712	74	37	Yes
128-K-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,922	--e	74	--e	--e
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,021	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	129,998	74	1,763	Yes
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	1.49E+07	74	202,233	Yes
128-K-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	9,642	--e	74	--e	--e
128-K-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	324,704	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	476	74	6.5	Yes
128-K-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	250	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,030	3.17E+06	74	42,997	No
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973	13,933	74	189	Yes
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	3,425	2.00E+06	74	2.00E+06	No
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	4,568	2.00E+06	74	2.00E+06	No

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
128-K-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,084	--b	74	--b	--b
128-K-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,542	5.04E+06	74	68,341	No
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.26E+06	--e	1.0	--e	--e
128-K-2_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	410	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4	4,766	1.0	4,766	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50	--e	1.0	--e	--e
128-K-2_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,300	20,000[d]	1.0	20,000	No
128-K-2_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,000	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	540	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	3,300	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	190	2,712	1.0	2,712	No
128-K-2_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	14,600	--e	1.0	--e	--e
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,400	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600	129,998	1.0	129,998	No
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	1.49E+07	1.0	1.49E+07	Yes
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300	--e	1.0	--e	--e
128-K-2_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	332,000	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	476	1.0	476	No
128-K-2_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,300	3.17E+06	1.0	3.17E+06	No
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100	13,933	1.0	13,933	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	560,000	2.00E+06	1.0	2.00E+06	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	1.20E+06	2.00E+06	1.0	2.00E+06	No
128-K-2_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	45,300	--b	1.0	--b	--b
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000	5.04E+06	1.0	5.04E+06	No
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040	92,105	4.9	18,779	No
132-KE-1_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	2,770	20,000[d]	4.9	20,000	No
132-KE-1_Shallow	non-Rad	Barium	7440-39-3	ug/kg	60,800	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	301	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	2,712	4.9	553	No
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	57	4.9	12	Yes
132-KE-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.42	389,000	4.9	79,310	No
132-KE-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	6,770	--e	4.9	--e	--e
132-KE-1_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,270	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,500	129,998	4.9	26,504	No
132-KE-1_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,340	--e	4.9	--e	--e
132-KE-1_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	308,000	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	397	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,340	3.17E+06	4.9	646,553	No
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041	--e	4.9	--e	--e
132-KE-1_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	267	13,933	4.9	2,841	No
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494	--b	4.9	--b	--b
132-KE-1_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	467	--b	4.9	--b	--b
132-KE-1_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	--h	4.9	--h	--h
132-KE-1_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	--h	4.9	--h	--h
132-KE-1_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.14	--h	4.9	--h	--h
132-KE-1_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	56,900	--b	4.9	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
132-KE-1_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,800	5.04E+06	4.9	1.03E+06	No
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	4,766	8.7	547	No
1607-K3_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	3,490	20,000[d]	8.7	20,000	No
1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	78,400	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	384	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,630	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200	--e	8.7	--e	--e
1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,300	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,800	129,998	8.7	14,918	Yes
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100	--e	8.7	--e	--e
1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59	476	8.7	55	Yes
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	18,800	3.17E+06	8.7	363,915	No
1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,590	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886	13,933	8.7	1,599	No
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	668	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	74,600	--b	8.7	--b	--b
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900	5.04E+06	8.7	578,429	No
600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	9.29E+06	--e	197	--e	--e
600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	520	--b	197	--b	--b
600-29_Shallow	non-Rad	Arsenic[c]	7440-38-2	ug/kg	10,358	20,000[d]	197	20,000	No
600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,216	--b	197	--b	--b
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67	--b	197	--b	--b
600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	653	--b	197	--b	--b
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103	--b	197	--b	--b
600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,759	--b	197	--b	--b
600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	105	2,712	197	14	Yes
600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,813	--e	197	--e	--e
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46	--b	197	--b	--b
600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,224	--b	197	--b	--b
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	129,998	197	659	Yes
600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.30E+07	1.49E+07	197	75,663	Yes
600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,752	--e	197	--e	--e
600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	348,791	--b	197	--b	--b
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	476	197	2.4	Yes
600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	274	--b	197	--b	--b
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	3.17E+06	197	16,087	Yes
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87	--b	197	--b	--b
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985	13,933	197	71	Yes
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	22,077	2.00E+06	197	2.00E+06	No
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	31,433	2.00E+06	197	2.00E+06	No
600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,344	--b	197	--b	--b
600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,782	5.04E+06	197	25,569	Yes
600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.83E+06	--e	1.0	--e	--e
600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	450	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Arsenic[c]	7440-38-2	ug/kg	6,800	20,000[d]	1.0	20,000	No
600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	68,500	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	620	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	--b	1.0	--b	--b

Table 7-2. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (Without Background Consideration)

Waste Site Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \; or \; \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Is EPC > Soil Screening Level Protective of Surface Water?
600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	160	2,712	1.0	2,712	No
600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,600	--e	1.0	--e	--e
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,900	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900	129,998	1.0	129,998	No
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.43E+07	1.49E+07	1.0	1.49E+07	Yes
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700	--e	1.0	--e	--e
600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	347,000	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	476	1.0	476	No
600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	290	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	3.17E+06	1.0	3.17E+06	No
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940	13,933	1.0	13,933	No
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180	12,526	1.0	12,526	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	20,000	2.00E+06	1.0	2.00E+06	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,000	2.00E+06	1.0	2.00E+06	No
600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	56,200	--b	1.0	--b	--b
600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	67,700	5.04E+06	1.0	5.04E+06	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

b. A soil screening level is not calculated because a surface water quality standard or criterion is not available for the analyte.

c. Waste site dimension was measured using the maximum flowline length of respective area delineated in Figure 7 of CVP-2013-00002 Rev.1

d. The Hanford Site cleanup value for arsenic is 20 mg/kg based on the letter Issues Associated with Establishing Soil Cleanup Levels for Arsenic published by the Department of Ecology Toxics Cleanup Program on June 11, 2013. This letter indicates that the Method A soil cleanup level of 20 mg/kg can be used to define natural background levels when developing Method B soil cleanup levels for the Hanford Site. While the measured 90th percentile background concentration of arsenic in Hanford soils is about 6.47 mg/kg, the value of 20 mg/kg is used as the applicable cleanup level.

e. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

f. The soil screening level for hexavalent chromium is set to a maximum value of 6,000 µg/kg because the kd value used in the model was derived from experiments with soil concentration less than 6,000 µg/kg.

g. Carbon-14 in this waste area is represented by Carbon-14 in graphite form (Kd = 200 mL/g)

h. Uranium isotopes are accounted for by converting from activity-based (pCi/g) to mass-based (µg/kg) concentrations and then summing to provide a mass-based total uranium exposure point concentration (identified as

-- = Not applicable or no value

ECF-Hanford-13-0012, Rev. 0, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report.*

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-102_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	595	130	Yes	385	Yes
100-K-102_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,654	20,000	No	27,700	No
100-K-102_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	71,680	132,000	No	480,000	No
100-K-102_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	346	1,510	No	10,000	No
100-K-102_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,027	3,890	No	5,860	No
100-K-102_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	123	563	No	2,980	No
100-K-102_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,143	18,500	No	320,000	No
100-K-102_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	11,613	15,700	No	110,000	No
100-K-102_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	18,990	22,000	No	61,000	No
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149	--	--	--	--
100-K-102_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,047	10,200	No	74,100	No
100-K-102_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	396,776	512,000	No	1.11E+06	No
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	13	Yes	29	Yes
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593	470	Yes	3,170	No
100-K-102_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,594	19,100	No	200,000	No
100-K-102_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	8,930	52,000	No	906,000	No
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	780	Yes	840	Yes
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455	--	--	--	--
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689	--	--	--	--
100-K-102_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	588	3,210	No	4,042	No
100-K-102_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	81,574	85,100	No	140,000	No
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913	67,800	Yes	366,000	No
100-K-102_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	445	130	Yes	385	Yes
100-K-102_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,032	20,000	No	27,700	No
100-K-102_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	62,641	132,000	No	480,000	No
100-K-102_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	311	1,510	No	10,000	No
100-K-102_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,082	3,890	No	5,860	No
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	563	Yes	2,980	No
100-K-102_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,303	18,500	No	320,000	No
100-K-102_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,123	15,700	No	110,000	No
100-K-102_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,143	22,000	No	61,000	No
100-K-102_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	7,073	10,200	No	74,100	No
100-K-102_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	324,038	512,000	No	1.11E+06	No
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	13	Yes	29	Yes
100-K-102_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	446	470	No	3,170	No
100-K-102_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,336	19,100	No	200,000	No
100-K-102_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	10,405	52,000	No	906,000	No
100-K-102_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	331	780	No	840	No
100-K-102_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	31	167	No	273	No
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284	--	--	--	--
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478	--	--	--	--
100-K-102_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	699	3,210	No	4,042	No
100-K-102_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,497	85,100	No	140,000	No
100-K-102_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	42,202	67,800	No	366,000	No
100-K-102_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	463	130	Yes	385	Yes
100-K-102_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,510	20,000	No	27,700	No
100-K-102_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	99,200	132,000	No	480,000	No
100-K-102_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	440	1,510	No	10,000	No
100-K-102_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,500	3,890	No	5,860	No
100-K-102_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	183	563	No	2,980	No
100-K-102_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	18,500	No	320,000	No
100-K-102_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	13,800	15,700	No	110,000	No
100-K-102_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	20,000	22,000	No	61,000	No
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610	2,810	Yes	73,300	No
100-K-102_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	9,040	10,200	No	74,100	No
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000	512,000	Yes	1.11E+06	No
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820	470	Yes	3,170	No
100-K-102_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,400	19,100	No	200,000	No
100-K-102_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	7,700	52,000	No	906,000	No
100-K-102_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	654	780	No	840	No
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200	--	--	--	--
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716	--	--	--	--
100-K-102_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	676	3,210	No	4,042	No
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700	85,100	Yes	140,000	No
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400	67,800	Yes	366,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-105_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	7.80E+06	1.18E+07	No	2.88E+07	No
100-K-105_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	130	130	No	385	No
100-K-105_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,500	20,000	No	27,700	No
100-K-105_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	64,000	132,000	No	480,000	No
100-K-105_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	340	1,510	No	10,000	No
100-K-105_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	87	563	No	2,980	No
100-K-105_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	8,900	18,500	No	320,000	No
100-K-105_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,600	15,700	No	110,000	No
100-K-105_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	14,000	22,000	No	61,000	No
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290	--	--	--	--
100-K-105_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	3.26E+07	No	6.81E+07	No
100-K-105_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,600	10,200	No	74,100	No
100-K-105_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	320,000	512,000	No	1.11E+06	No
100-K-105_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	310	470	No	3,170	No
100-K-105_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,500	19,100	No	200,000	No
100-K-105_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	5,750	52,000	No	906,000	No
100-K-105_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	500	780	No	840	No
100-K-105_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	21	167	No	273	No
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000	--	--	--	--
100-K-105_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.17	0.18	No	0.37	No
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660	--	--	--	--
100-K-105_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	360	3,210	No	4,042	No
100-K-105_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	46,000	85,100	No	140,000	No
100-K-105_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	41,000	67,800	No	366,000	No
100-K-105_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.30E+06	1.18E+07	No	2.88E+07	No
100-K-105_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	96	130	No	385	No
100-K-105_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,200	20,000	No	27,700	No
100-K-105_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	52,000	132,000	No	480,000	No
100-K-105_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	270	1,510	No	10,000	No
100-K-105_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	55	563	No	2,980	No
100-K-105_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	7,300	18,500	No	320,000	No
100-K-105_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,200	15,700	No	110,000	No
100-K-105_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	12,000	22,000	No	61,000	No
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	--	--	--	--
100-K-105_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	3.26E+07	No	6.81E+07	No
100-K-105_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,700	10,200	No	74,100	No
100-K-105_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	270,000	512,000	No	1.11E+06	No
100-K-105_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	300	470	No	3,170	No
100-K-105_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,200	19,100	No	200,000	No
100-K-105_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	510	780	No	840	No
100-K-105_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	18	167	No	273	No
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000	--	--	--	--
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570	--	--	--	--
100-K-105_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	320	3,210	No	4,042	No
100-K-105_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	85,100	No	140,000	No
100-K-105_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	41,000	67,800	No	366,000	No
100-K-105_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.70E+06	1.18E+07	No	2.88E+07	No
100-K-105_Shallow_3	non-Rad	Antimony	7440-36-0	ug/kg	120	130	No	385	No
100-K-105_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,500	20,000	No	27,700	No
100-K-105_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	60,000	132,000	No	480,000	No
100-K-105_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	310	1,510	No	10,000	No
100-K-105_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	50	563	No	2,980	No
100-K-105_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,200	18,500	No	320,000	No
100-K-105_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,500	15,700	No	110,000	No
100-K-105_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,000	22,000	No	61,000	No
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160	--	--	--	--
100-K-105_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	1.90E+07	3.26E+07	No	6.81E+07	No
100-K-105_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,300	10,200	No	74,100	No
100-K-105_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	512,000	No	1.11E+06	No
100-K-105_Shallow_3	non-Rad	Mercury	7439-97-6	ug/kg	8.8	13	No	29	No
100-K-105_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	290	470	No	3,170	No
100-K-105_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	10,000	19,100	No	200,000	No
100-K-105_Shallow_3	non-Rad	Selenium	7782-49-2	ug/kg	540	780	No	840	No
100-K-105_Shallow_3	non-Rad	Silver	7440-22-4	ug/kg	25	167	No	273	No
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590	--	--	--	--
100-K-105_Shallow_3	non-Rad	Uranium	7440-61-1	ug/kg	930	3,210	No	4,042	No
100-K-105_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	43,000	85,100	No	140,000	No
100-K-105_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	54,000	67,800	No	366,000	No
100-K-106_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	992	20,000	No	27,700	No
100-K-106_Shallow	non-Rad	Barium	7440-39-3	ug/kg	42,600	132,000	No	480,000	No
100-K-106_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	210	1,510	No	10,000	No
100-K-106_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	37	563	No	2,980	No
100-K-106_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	2,790	18,500	No	320,000	No
100-K-106_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	6,380	15,700	No	110,000	No
100-K-106_Shallow	non-Rad	Copper	7440-50-8	ug/kg	11,200	22,000	No	61,000	No
100-K-106_Shallow	non-Rad	Lead	7439-92-1	ug/kg	1,990	10,200	No	74,100	No
100-K-106_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	203,000	512,000	No	1.11E+06	No
100-K-106_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	228	470	No	3,170	No
100-K-106_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,250	19,100	No	200,000	No
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--	--	--	--
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332	--	--	--	--
100-K-106_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	292	3,210	No	4,042	No
100-K-106_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	33,000	85,100	No	140,000	No
100-K-106_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	33,200	67,800	No	366,000	No
100-K-106_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,320	20,000	No	27,700	No
100-K-106_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	55,600	132,000	No	480,000	No
100-K-106_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	211	1,510	No	10,000	No
100-K-106_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	59	563	No	2,980	No
100-K-106_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,510	18,500	No	320,000	No
100-K-106_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,240	15,700	No	110,000	No
100-K-106_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,100	22,000	No	61,000	No
100-K-106_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,410	10,200	No	74,100	No
100-K-106_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	250,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	265	470	No	3,170	No
100-K-106_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,170	19,100	No	200,000	No
100-K-106_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	13,100	52,000	No	906,000	No
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900	--	--	--	--
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370	--	--	--	--
100-K-106_Shallow_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	367	3,210	No	4,042	No
100-K-106_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	43,500	85,100	No	140,000	No
100-K-106_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	34,600	67,800	No	366,000	No
100-K-106_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,480	20,000	No	27,700	No
100-K-106_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	58,800	132,000	No	480,000	No
100-K-106_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	231	1,510	No	10,000	No
100-K-106_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	52	563	No	2,980	No
100-K-106_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	5,370	18,500	No	320,000	No
100-K-106_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	10,200	15,700	No	110,000	No
100-K-106_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,000	22,000	No	61,000	No
100-K-106_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,450	10,200	No	74,100	No
100-K-106_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	399,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490	470	Yes	3,170	No
100-K-106_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	7,310	19,100	No	200,000	No
100-K-106_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,150	52,000	No	906,000	No
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100	--	--	--	--
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478	--	--	--	--
100-K-106_Shallow_Focused_2	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	6,500	--	--	--	--
100-K-106_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	386	3,210	No	4,042	No
100-K-106_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,300	85,100	No	140,000	No
100-K-106_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	40,500	67,800	No	366,000	No
100-K-106_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,750	20,000	No	27,700	No
100-K-106_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	59,800	132,000	No	480,000	No
100-K-106_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	341	1,510	No	10,000	No
100-K-106_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	70	563	No	2,980	No
100-K-106_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	5,710	18,500	No	320,000	No
100-K-106_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,780	15,700	No	110,000	No
100-K-106_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	22,000	No	61,000	No
100-K-106_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,340	10,200	No	74,100	No
100-K-106_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	326,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499	470	Yes	3,170	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-106_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	7,950	19,100	No	200,000	No
100-K-106_Shallow_Focused_3	non-Rad	Nitrate	14797-55-8	ug/kg	20,900	52,000	No	906,000	No
100-K-106_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	34	167	No	273	No
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300	--	--	--	--
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547	--	--	--	--
100-K-106_Shallow_Focused_3	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	46,000	--	--	--	--
100-K-106_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	470	3,210	No	4,042	No
100-K-106_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	54,800	85,100	No	140,000	No
100-K-106_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	43,800	67,800	No	366,000	No
100-K-106_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,010	20,000	No	27,700	No
100-K-106_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	49,000	132,000	No	480,000	No
100-K-106_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	187	1,510	No	10,000	No
100-K-106_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	563	No	2,980	No
100-K-106_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,280	18,500	No	320,000	No
100-K-106_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,950	15,700	No	110,000	No
100-K-106_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	22,000	No	61,000	No
100-K-106_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	1,830	10,200	No	74,100	No
100-K-106_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	262,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	303	470	No	3,170	No
100-K-106_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,250	19,100	No	200,000	No
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900	--	--	--	--
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402	--	--	--	--
100-K-106_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	356	3,210	No	4,042	No
100-K-106_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	40,700	85,100	No	140,000	No
100-K-106_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	35,000	67,800	No	366,000	No
100-K-106_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,730	20,000	No	27,700	No
100-K-106_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	53,300	132,000	No	480,000	No
100-K-106_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	319	1,510	No	10,000	No
100-K-106_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	52	563	No	2,980	No
100-K-106_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,680	18,500	No	320,000	No
100-K-106_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,960	15,700	No	110,000	No
100-K-106_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	15,000	22,000	No	61,000	No
100-K-106_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	2,760	10,200	No	74,100	No
100-K-106_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	261,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	372	470	No	3,170	No
100-K-106_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	7,110	19,100	No	200,000	No
100-K-106_Shallow_Focused_5	non-Rad	Selenium	7782-49-2	ug/kg	275	780	No	840	No
100-K-106_Shallow_Focused_5	non-Rad	Silver	7440-22-4	ug/kg	33	167	No	273	No
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--	--	--	--
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481	--	--	--	--
100-K-106_Shallow_Focused_5	non-Rad	Uranium	7440-61-1	ug/kg	488	3,210	No	4,042	No
100-K-106_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	58,000	85,100	No	140,000	No
100-K-106_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	39,800	67,800	No	366,000	No
100-K-106_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000	No	27,700	No
100-K-106_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	57,200	132,000	No	480,000	No
100-K-106_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	329	1,510	No	10,000	No
100-K-106_Shallow_Focused_6	non-Rad	Cadmium	7440-43-9	ug/kg	41	563	No	2,980	No
100-K-106_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	6,070	18,500	No	320,000	No
100-K-106_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	9,640	15,700	No	110,000	No
100-K-106_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	16,200	22,000	No	61,000	No
100-K-106_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	3,380	10,200	No	74,100	No
100-K-106_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	330,000	512,000	No	1.11E+06	No
100-K-106_Shallow_Focused_6	non-Rad	Molybdenum	7439-98-7	ug/kg	298	470	No	3,170	No
100-K-106_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	9,740	19,100	No	200,000	No
100-K-106_Shallow_Focused_6	non-Rad	Nitrate	14797-55-8	ug/kg	10,400	52,000	No	906,000	No
100-K-106_Shallow_Focused_6	non-Rad	Selenium	7782-49-2	ug/kg	253	780	No	840	No
100-K-106_Shallow_Focused_6	non-Rad	Silver	7440-22-4	ug/kg	25	167	No	273	No
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800	--	--	--	--
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465	--	--	--	--
100-K-106_Shallow_Focused_6	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	50,000	--	--	--	--
100-K-106_Shallow_Focused_6	non-Rad	Uranium	7440-61-1	ug/kg	478	3,210	No	4,042	No
100-K-106_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	44,300	85,100	No	140,000	No
100-K-106_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	38,600	67,800	No	366,000	No
100-K-109_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,190	20,000	No	27,700	No
100-K-109_Shallow	non-Rad	Barium	7440-39-3	ug/kg	56,735	132,000	No	480,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-109_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	296	1,510	No	10,000	No
100-K-109_Shallow	non-Rad	Boron	7440-42-8	ug/kg	898	3,890	No	5,860	No
100-K-109_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.022	1.1	No	1.6	No
100-K-109_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,903	18,500	No	320,000	No
100-K-109_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,090	15,700	No	110,000	No
100-K-109_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,732	22,000	No	61,000	No
100-K-109_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,032	10,200	No	74,100	No
100-K-109_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	331,189	512,000	No	1.11E+06	No
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76	13	Yes	29	Yes
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480	470	Yes	3,170	No
100-K-109_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,689	19,100	No	200,000	No
100-K-109_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	7,823	52,000	No	906,000	No
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	780	Yes	840	Yes
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362	--	--	--	--
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446	--	--	--	--
100-K-109_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	456	3,210	No	4,042	No
100-K-109_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	57,582	85,100	No	140,000	No
100-K-109_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	43,302	67,800	No	366,000	No
100-K-109_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	1,900	20,000	No	27,700	No
100-K-109_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	60,200	132,000	No	480,000	No
100-K-109_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	300	1,510	No	10,000	No
100-K-109_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	81	563	No	2,980	No
100-K-109_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,900	18,500	No	320,000	No
100-K-109_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,100	15,700	No	110,000	No
100-K-109_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	22,000	No	61,000	No
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167	--	--	--	--
100-K-109_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,200	10,200	No	74,100	No
100-K-109_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	359,000	512,000	No	1.11E+06	No
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14	13	Yes	29	No
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480	470	Yes	3,170	No
100-K-109_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,500	19,100	No	200,000	No
100-K-109_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	5,050	52,000	No	906,000	No
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900	780	Yes	840	Yes
100-K-109_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	47	167	No	273	No
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700	--	--	--	--
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970	--	--	--	--
100-K-109_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	460	3,210	No	4,042	No
100-K-109_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	75,500	85,100	No	140,000	No
100-K-109_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	56,100	67,800	No	366,000	No
100-K-110_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	7.00E+06	1.18E+07	No	2.88E+07	No
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417	130	Yes	385	Yes
100-K-110_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	8,694	20,000	No	27,700	No
100-K-110_Shallow	non-Rad	Barium	7440-39-3	ug/kg	73,627	132,000	No	480,000	No
100-K-110_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	326	1,510	No	10,000	No
100-K-110_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	118	563	No	2,980	No
100-K-110_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.094	1.1	No	1.6	No
100-K-110_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,294	18,500	No	320,000	No
100-K-110_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,749	15,700	No	110,000	No
100-K-110_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,605	22,000	No	61,000	No
100-K-110_Shallow	Rad	Europium-155	14391-16-3	pCi/g	0.034	0.054	No	0.098	No
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199	--	--	--	--
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	3.26E+07	Yes	6.81E+07	No
100-K-110_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,648	10,200	No	74,100	No
100-K-110_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	412,928	512,000	No	1.11E+06	No
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	13	Yes	29	Yes
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587	470	Yes	3,170	No
100-K-110_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,586	19,100	No	200,000	No
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	780	Yes	840	Yes
100-K-110_Shallow	non-Rad	Silver	7440-22-4	ug/kg	38	167	No	273	No
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258	--	--	--	--
100-K-110_Shallow	non-Rad	Thallium	7440-28-0	ug/kg	142	185	No	523	No
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994	--	--	--	--
100-K-110_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,610	85,100	No	140,000	No
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	67,800	Yes	366,000	No
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870	563	Yes	2,980	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-110_Shallow_focused	non-Rad	Chromium	7440-47-3	ug/kg	8,640	18,500	No	320,000	No
100-K-110_Shallow_focused	non-Rad	Lead	7439-92-1	ug/kg	5,630	10,200	No	74,100	No
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110	13	Yes	29	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,152	130	Yes	385	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,120	20,000	No	27,700	No
100-K-14, 126-KE-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,924	132,000	No	480,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633	1,510	Yes	10,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604	3,890	Yes	5,860	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,578	18,500	No	320,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,836	15,700	No	110,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,884	22,000	No	61,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,373	10,200	No	74,100	No
100-K-14, 126-KE-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	398,037	512,000	No	1.11E+06	No
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	13	Yes	29	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222	470	Yes	3,170	No
100-K-14, 126-KE-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,912	19,100	No	200,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	2,636	52,000	No	906,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141	780	Yes	840	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958	167	Yes	273	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067	85,100	Yes	140,000	No
100-K-14, 126-KE-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,730	67,800	No	366,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	4,335	20,000	No	27,700	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,392	132,000	No	480,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	414	1,510	No	10,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,701	3,890	No	5,860	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	93	563	No	2,980	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,100	18,500	No	320,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,643	15,700	No	110,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,484	22,000	No	61,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,780	10,200	No	74,100	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	421,132	512,000	No	1.11E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	68	13	Yes	29	Yes
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	622	470	Yes	3,170	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,208	19,100	No	200,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	24,794	52,000	No	906,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,057	780	Yes	840	Yes
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	34,319	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	626	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	639	3,210	No	4,042	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	87,520	85,100	Yes	140,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	60,142	67,800	No	366,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	1,600	20,000	No	27,700	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	54,400	132,000	No	480,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	1,510	No	10,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	61	563	No	2,980	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	18,500	No	320,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,400	15,700	No	110,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	17,400	22,000	No	61,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,100	10,200	No	74,100	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	294,000	512,000	No	1.11E+06	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	290	13	Yes	29	Yes
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	510	470	Yes	3,170	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	6,100	19,100	No	200,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,700	780	Yes	840	Yes
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	53	167	No	273	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	480	--	--	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	380	3,210	No	4,042	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	85,100	No	140,000	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	55,700	67,800	No	366,000	No
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98	--	--	--	--
100-K-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300	20,000	No	27,700	No
100-K-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	66,400	132,000	No	480,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	563	No	2,980	No
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700	18,500	Yes	320,000	No
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200	--	--	--	--
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200	10,200	Yes	74,100	No
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50	13	Yes	29	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,520	130	Yes	385	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	4,321	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Barium	7440-39-3	ug/kg	72,619	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	307	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,129	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	87	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.062	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chromium	7440-47-3	ug/kg	6,988	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	9,620	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Copper	7440-50-8	ug/kg	18,087	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Lead	7439-92-1	ug/kg	5,538	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Manganese	7439-96-5	ug/kg	315,657	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28	13	Yes	29	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	374	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nickel	7440-02-0	ug/kg	9,603	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	6,970	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	0.025	Yes	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Selenium	7782-49-2	ug/kg	285	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Silver	7440-22-4	ug/kg	63	167	No	273	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72	0.18	Yes	0.37	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Uranium	7440-61-1	ug/kg	557	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-235	15117-96-1	pCi/g	0.012	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	47,848	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Zinc	7440-66-6	ug/kg	44,799	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	597	130	Yes	385	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	42,600	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	133	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	707	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	0.037	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	4,120	18,500	No	320,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	6,600	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,800	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	4,430	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	217,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	331	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	7,010	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,100	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2	0.18	Yes	0.37	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	308	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.11	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	28,700	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	31,500	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Barium	7440-39-3	ug/kg	48,000	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Beryllium	7440-41-7	ug/kg	214	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Boron	7440-42-8	ug/kg	664	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cadmium	7440-43-9	ug/kg	56	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chromium	7440-47-3	ug/kg	4,160	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Cobalt	7440-48-4	ug/kg	8,180	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Copper	7440-50-8	ug/kg	16,000	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Lead	7439-92-1	ug/kg	2,860	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Manganese	7439-96-5	ug/kg	265,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Molybdenum	7439-98-7	ug/kg	195	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nickel	7440-02-0	ug/kg	7,500	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Nitrate	14797-55-8	ug/kg	8,010	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	0.0038	Yes	0.019	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14	0.025	Yes	0.033	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4	0.18	Yes	0.37	Yes
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Uranium	7440-61-1	ug/kg	344	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-235	15117-96-1	pCi/g	0.017	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Uranium-238	7440-61-1	pCi/g	0.14	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Vanadium	7440-62-2	ug/kg	30,500	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Zinc	7440-66-6	ug/kg	34,100	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	374	130	Yes	385	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,376	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,180	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	312	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,900	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	97	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.29	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,672	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,148	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,544	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,602	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	344,962	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50	13	Yes	29	Yes
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733	470	Yes	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,440	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	12,632	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	0.025	Yes	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	258	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	167	No	273	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	464	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.018	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.19	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,526	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,004	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	1,640	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	48,800	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	197	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	0.057	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	2,900	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	8,120	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	14,700	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,190	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	258,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	224	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	6,370	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	8,680	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	369	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.13	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.017	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.14	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	30,700	85,100	No	140,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	33,600	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,110	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	68,900	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	303	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,920	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,860	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,900	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	3,520	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	335,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	242	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	11,100	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.016	0.025	No	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	300	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	485	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-235	15117-96-1	pCi/g	0.0097	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	42,400	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	42,500	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,100	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	56,800	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	283	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	56	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	4,960	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	8,130	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	15,700	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,940	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	266,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	222	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	7,710	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Uranium	7440-61-1	ug/kg	408	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-235	15117-96-1	pCi/g	0.020	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	35,600	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	33,800	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Arsenic	7440-38-2	ug/kg	2,830	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Barium	7440-39-3	ug/kg	62,500	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Beryllium	7440-41-7	ug/kg	267	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Boron	7440-42-8	ug/kg	958	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cadmium	7440-43-9	ug/kg	70	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chromium	7440-47-3	ug/kg	5,900	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Cobalt	7440-48-4	ug/kg	8,030	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Copper	7440-50-8	ug/kg	14,800	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Lead	7439-92-1	ug/kg	5,150	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Manganese	7439-96-5	ug/kg	303,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Molybdenum	7439-98-7	ug/kg	223	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Nickel	7440-02-0	ug/kg	9,520	19,100	No	200,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.020	0.025	No	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Uranium	7440-61-1	ug/kg	506	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-235	15117-96-1	pCi/g	0.0063	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Vanadium	7440-62-2	ug/kg	28,800	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Zinc	7440-66-6	ug/kg	36,700	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Arsenic	7440-38-2	ug/kg	2,990	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Barium	7440-39-3	ug/kg	69,700	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Beryllium	7440-41-7	ug/kg	277	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Boron	7440-42-8	ug/kg	1,700	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cadmium	7440-43-9	ug/kg	75	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chromium	7440-47-3	ug/kg	8,670	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Cobalt	7440-48-4	ug/kg	8,980	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Copper	7440-50-8	ug/kg	16,900	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Lead	7439-92-1	ug/kg	6,080	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Manganese	7439-96-5	ug/kg	318,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Molybdenum	7439-98-7	ug/kg	273	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nickel	7440-02-0	ug/kg	10,300	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Nitrate	14797-55-8	ug/kg	5,000	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Uranium	7440-61-1	ug/kg	506	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-235	15117-96-1	pCi/g	0.0070	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	Rad	Uranium-238	7440-61-1	pCi/g	0.23	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Vanadium	7440-62-2	ug/kg	36,000	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Zinc	7440-66-6	ug/kg	38,800	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Antimony	7440-36-0	ug/kg	319	130	Yes	385	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Barium	7440-39-3	ug/kg	55,200	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Beryllium	7440-41-7	ug/kg	291	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Boron	7440-42-8	ug/kg	2,970	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cadmium	7440-43-9	ug/kg	63	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chromium	7440-47-3	ug/kg	8,390	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Cobalt	7440-48-4	ug/kg	8,390	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Copper	7440-50-8	ug/kg	16,500	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200	10,200	Yes	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Manganese	7439-96-5	ug/kg	275,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483	470	Yes	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Nickel	7440-02-0	ug/kg	19,100	19,100	No	200,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Uranium	7440-61-1	ug/kg	437	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-235	15117-96-1	pCi/g	0.0099	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Vanadium	7440-62-2	ug/kg	23,900	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Zinc	7440-66-6	ug/kg	32,700	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Arsenic	7440-38-2	ug/kg	2,680	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Barium	7440-39-3	ug/kg	61,600	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Beryllium	7440-41-7	ug/kg	342	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Boron	7440-42-8	ug/kg	1,600	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cadmium	7440-43-9	ug/kg	72	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chromium	7440-47-3	ug/kg	7,710	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Cobalt	7440-48-4	ug/kg	8,670	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Copper	7440-50-8	ug/kg	15,600	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Lead	7439-92-1	ug/kg	5,710	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Manganese	7439-96-5	ug/kg	308,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Molybdenum	7439-98-7	ug/kg	282	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Nickel	7440-02-0	ug/kg	10,200	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Uranium	7440-61-1	ug/kg	484	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-235	15117-96-1	pCi/g	0.0077	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Vanadium	7440-62-2	ug/kg	35,200	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Zinc	7440-66-6	ug/kg	38,600	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Arsenic	7440-38-2	ug/kg	2,830	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Barium	7440-39-3	ug/kg	62,200	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Beryllium	7440-41-7	ug/kg	311	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chromium	7440-47-3	ug/kg	4,710	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Copper	7440-50-8	ug/kg	18,400	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Lead	7439-92-1	ug/kg	4,020	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Manganese	7439-96-5	ug/kg	290,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Molybdenum	7439-98-7	ug/kg	215	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Nickel	7440-02-0	ug/kg	8,650	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Selenium	7782-49-2	ug/kg	301	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Uranium	7440-61-1	ug/kg	436	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-235	15117-96-1	pCi/g	0.0079	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Uranium-238	7440-61-1	pCi/g	0.19	1.1	No	1.2	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Vanadium	7440-62-2	ug/kg	30,600	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Zinc	7440-66-6	ug/kg	38,000	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Arsenic	7440-38-2	ug/kg	3,090	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Barium	7440-39-3	ug/kg	64,200	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Beryllium	7440-41-7	ug/kg	272	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Boron	7440-42-8	ug/kg	806	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cadmium	7440-43-9	ug/kg	87	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Chromium	7440-47-3	ug/kg	8,670	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Cobalt	7440-48-4	ug/kg	8,260	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Copper	7440-50-8	ug/kg	16,800	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100	10,200	Yes	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Manganese	7439-96-5	ug/kg	324,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Molybdenum	7439-98-7	ug/kg	272	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nickel	7440-02-0	ug/kg	11,100	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Nitrate	14797-55-8	ug/kg	17,400	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Uranium	7440-61-1	ug/kg	529	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-235	15117-96-1	pCi/g	0.028	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Vanadium	7440-62-2	ug/kg	35,800	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Zinc	7440-66-6	ug/kg	40,200	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Arsenic	7440-38-2	ug/kg	2,610	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Barium	7440-39-3	ug/kg	58,000	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Beryllium	7440-41-7	ug/kg	296	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990	3,890	Yes	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chromium	7440-47-3	ug/kg	6,700	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Cobalt	7440-48-4	ug/kg	8,150	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Copper	7440-50-8	ug/kg	16,500	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Lead	7439-92-1	ug/kg	4,780	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Manganese	7439-96-5	ug/kg	306,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Molybdenum	7439-98-7	ug/kg	250	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nickel	7440-02-0	ug/kg	9,500	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Nitrate	14797-55-8	ug/kg	4,560	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Uranium	7440-61-1	ug/kg	370	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-233/234	U-233/234	pCi/g	0.17	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-235	15117-96-1	pCi/g	0.0078	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	Rad	Uranium-238	7440-61-1	pCi/g	0.19	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Vanadium	7440-62-2	ug/kg	38,200	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Zinc	7440-66-6	ug/kg	38,200	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Arsenic	7440-38-2	ug/kg	2,700	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Barium	7440-39-3	ug/kg	66,000	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Beryllium	7440-41-7	ug/kg	229	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cadmium	7440-43-9	ug/kg	64	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Cesium-137	10045-97-3	pCi/g	0.50	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chromium	7440-47-3	ug/kg	6,520	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Cobalt	7440-48-4	ug/kg	9,360	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Copper	7440-50-8	ug/kg	18,800	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Lead	7439-92-1	ug/kg	3,690	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Manganese	7439-96-5	ug/kg	331,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Molybdenum	7439-98-7	ug/kg	244	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Nickel	7440-02-0	ug/kg	10,500	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	0.025	Yes	0.033	Yes
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5	0.18	Yes	0.37	Yes
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Uranium	7440-61-1	ug/kg	528	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-233/234	U-233/234	pCi/g	0.23	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-235	15117-96-1	pCi/g	0.022	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Uranium-238	7440-61-1	pCi/g	0.21	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Vanadium	7440-62-2	ug/kg	35,100	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Zinc	7440-66-6	ug/kg	39,200	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Arsenic	7440-38-2	ug/kg	1,290	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Barium	7440-39-3	ug/kg	40,000	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Beryllium	7440-41-7	ug/kg	175	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Boron	7440-42-8	ug/kg	549	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Chromium	7440-47-3	ug/kg	1,450	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Copper	7440-50-8	ug/kg	14,400	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Lead	7439-92-1	ug/kg	2,070	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Manganese	7439-96-5	ug/kg	205,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Molybdenum	7439-98-7	ug/kg	175	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Nickel	7440-02-0	ug/kg	5,200	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Selenium	7782-49-2	ug/kg	282	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Uranium	7440-61-1	ug/kg	373	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-235	15117-96-1	pCi/g	0.030	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	Rad	Uranium-238	7440-61-1	pCi/g	0.18	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Vanadium	7440-62-2	ug/kg	24,700	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Zinc	7440-66-6	ug/kg	27,300	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Arsenic	7440-38-2	ug/kg	2,390	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Barium	7440-39-3	ug/kg	51,800	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Beryllium	7440-41-7	ug/kg	247	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Boron	7440-42-8	ug/kg	2,010	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cadmium	7440-43-9	ug/kg	62	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chromium	7440-47-3	ug/kg	7,090	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Cobalt	7440-48-4	ug/kg	6,860	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Copper	7440-50-8	ug/kg	13,800	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Lead	7439-92-1	ug/kg	5,070	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Manganese	7439-96-5	ug/kg	247,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Molybdenum	7439-98-7	ug/kg	211	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nickel	7440-02-0	ug/kg	8,640	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Nitrate	14797-55-8	ug/kg	4,390	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.018	0.025	No	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Uranium	7440-61-1	ug/kg	371	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-235	15117-96-1	pCi/g	0.018	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Vanadium	7440-62-2	ug/kg	23,700	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Zinc	7440-66-6	ug/kg	31,100	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Arsenic	7440-38-2	ug/kg	1,710	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Barium	7440-39-3	ug/kg	45,400	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Beryllium	7440-41-7	ug/kg	189	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cadmium	7440-43-9	ug/kg	83	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chromium	7440-47-3	ug/kg	2,370	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Cobalt	7440-48-4	ug/kg	7,920	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Copper	7440-50-8	ug/kg	15,600	22,000	No	61,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Lead	7439-92-1	ug/kg	3,330	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Manganese	7439-96-5	ug/kg	218,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Molybdenum	7439-98-7	ug/kg	234	470	No	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Nickel	7440-02-0	ug/kg	5,650	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	0.025	No	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Uranium	7440-61-1	ug/kg	408	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-235	15117-96-1	pCi/g	0.014	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	Rad	Uranium-238	7440-61-1	pCi/g	0.16	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Vanadium	7440-62-2	ug/kg	28,100	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Zinc	7440-66-6	ug/kg	30,900	67,800	No	366,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Antimony	7440-36-0	ug/kg	392	130	Yes	385	Yes
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Arsenic	7440-38-2	ug/kg	3,830	20,000	No	27,700	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Barium	7440-39-3	ug/kg	72,600	132,000	No	480,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Beryllium	7440-41-7	ug/kg	357	1,510	No	10,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Boron	7440-42-8	ug/kg	1,450	3,890	No	5,860	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cadmium	7440-43-9	ug/kg	104	563	No	2,980	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Cesium-137	10045-97-3	pCi/g	0.059	1.1	No	1.6	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chromium	7440-47-3	ug/kg	6,600	18,500	No	320,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	15,700	No	110,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Copper	7440-50-8	ug/kg	18,400	22,000	No	61,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Lead	7439-92-1	ug/kg	6,840	10,200	No	74,100	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Manganese	7439-96-5	ug/kg	321,000	512,000	No	1.11E+06	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625	470	Yes	3,170	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nickel	7440-02-0	ug/kg	9,750	19,100	No	200,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Nitrate	14797-55-8	ug/kg	4,650	52,000	No	906,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.011	0.025	No	0.033	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Selenium	7782-49-2	ug/kg	273	780	No	840	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Silver	7440-22-4	ug/kg	59	167	No	273	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572	--	--	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Uranium	7440-61-1	ug/kg	548	3,210	No	4,042	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	1.1	No	1.5	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-235	15117-96-1	pCi/g	0.0061	0.11	No	0.39	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	Rad	Uranium-238	7440-61-1	pCi/g	0.16	1.1	No	1.2	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Vanadium	7440-62-2	ug/kg	44,400	85,100	No	140,000	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Zinc	7440-66-6	ug/kg	45,600	67,800	No	366,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.36	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,560	20,000	No	27,700	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	60,100	132,000	No	480,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	269	1,510	No	10,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	71	563	No	2,980	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	48	1.1	Yes	1.6	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	3,330	18,500	No	320,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	15,700	No	110,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	15,900	22,000	No	61,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	2,540	10,200	No	74,100	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	267,000	512,000	No	1.11E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	315	470	No	3,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,820	19,100	No	200,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	0.0038	Yes	0.019	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58	0.025	Yes	0.033	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Selenium	7782-49-2	ug/kg	313	780	No	840	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Silver	7440-22-4	ug/kg	29	167	No	273	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	26,400	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	16	0.18	Yes	0.37	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	410	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Uranium	7440-61-1	ug/kg	437	3,210	No	4,042	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	1.1	No	1.5	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.026	0.11	No	0.39	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	49,200	85,100	No	140,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	38,500	67,800	No	366,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	193	130	Yes	385	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,726	20,000	No	27,700	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Barium	7440-39-3	ug/kg	69,394	132,000	No	480,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	406	1,510	No	10,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	83	563	No	2,980	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6	1.1	Yes	1.6	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,069	18,500	No	320,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,796	15,700	No	110,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	0.0084	Yes	0.039	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Copper	7440-50-8	ug/kg	17,640	22,000	No	61,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,721	10,200	No	74,100	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	325,964	512,000	No	1.11E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	382	470	No	3,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,444	19,100	No	200,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026	0.0038	Yes	0.019	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16	0.025	Yes	0.033	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	780	No	840	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Silver	7440-22-4	ug/kg	41	167	No	273	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89	0.18	Yes	0.37	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	530	3,210	No	4,042	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	1.1	No	1.5	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	0.11	No	0.39	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	53,139	85,100	No	140,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,856	67,800	No	366,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Anthracene	120-12-7	ug/kg	2.2	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Antimony	7440-36-0	ug/kg	120	130	No	385	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,000	20,000	No	27,700	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	63,000	132,000	No	480,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	280	1,510	No	10,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	87	563	No	2,980	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	4,700	18,500	No	320,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	12	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	12,200	15,700	No	110,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	17,100	22,000	No	61,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	18	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	3,800	10,200	No	74,100	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	364,000	512,000	No	1.11E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	430	470	No	3,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	9,000	19,100	No	200,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Nitrate	14797-55-8	ug/kg	2,390	52,000	No	906,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Selenium	7782-49-2	ug/kg	1,800	780	Yes	840	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Silver	7440-22-4	ug/kg	49	167	No	273	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	25,400	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	590	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Uranium	7440-61-1	ug/kg	460	3,210	No	4,042	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.41	1.1	No	1.5	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.31	1.1	No	1.2	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	60,200	85,100	No	140,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	48,100	67,800	No	366,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.23	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	1,200	130	Yes	385	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	3,100	20,000	No	27,700	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	57,800	132,000	No	480,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	270	1,510	No	10,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	110	563	No	2,980	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Cesium-137	10045-97-3	pCi/g	1.6	1.1	Yes	1.6	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	6,600	18,500	No	320,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chrysene	218-01-9	ug/kg	73	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	15,700	No	110,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	18,100	22,000	No	61,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Europium-152	14683-23-9	pCi/g	0.23	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	6,900	10,200	No	74,100	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	300,000	512,000	No	1.11E+06	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	400	470	No	3,170	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	9,400	19,100	No	200,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	1,600	780	Yes	840	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Silver	7440-22-4	ug/kg	45	167	No	273	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	27,800	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Strontium-90	10098-97-2	pCi/g	0.96	0.18	Yes	0.37	Yes
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	570	--	--	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Uranium	7440-61-1	ug/kg	430	3,210	No	4,042	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.60	1.1	No	1.5	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.56	1.1	No	1.2	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	53,600	85,100	No	140,000	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	50,300	67,800	No	366,000	No
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035	--	--	--	--
100-K-3_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	554	130	Yes	385	Yes
100-K-3_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,190	20,000	No	27,700	No
100-K-3_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	98,100	132,000	No	480,000	No
100-K-3_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	416	1,510	No	10,000	No
100-K-3_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	80	563	No	2,980	No
100-K-3_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.23	1.1	No	1.6	No
100-K-3_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	9,000	18,500	No	320,000	No
100-K-3_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	10,700	15,700	No	110,000	No
100-K-3_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,900	22,000	No	61,000	No
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44	--	--	--	--
100-K-3_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	8,110	10,200	No	74,100	No
100-K-3_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	424,000	512,000	No	1.11E+06	No
100-K-3_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	435	470	No	3,170	No
100-K-3_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	10,300	19,100	No	200,000	No
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047	0.025	Yes	0.033	Yes
100-K-3_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	281	780	No	840	No
100-K-3_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	56	167	No	273	No
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--	--	--	--
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636	--	--	--	--
100-K-3_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	815	3,210	No	4,042	No
100-K-3_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-3_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.17	1.1	No	1.2	No
100-K-3_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	47,700	85,100	No	140,000	No
100-K-3_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,600	67,800	No	366,000	No
100-K-3_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,730	20,000	No	27,700	No
100-K-3_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	70,100	132,000	No	480,000	No
100-K-3_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	334	1,510	No	10,000	No
100-K-3_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	833	3,890	No	5,860	No
100-K-3_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	83	563	No	2,980	No
100-K-3_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.077	1.1	No	1.6	No
100-K-3_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	6,540	18,500	No	320,000	No
100-K-3_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,100	15,700	No	110,000	No
100-K-3_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	17,400	22,000	No	61,000	No
100-K-3_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,460	10,200	No	74,100	No
100-K-3_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	301,000	512,000	No	1.11E+06	No
100-K-3_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	394	470	No	3,170	No
100-K-3_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	9,590	19,100	No	200,000	No
100-K-3_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,330	52,000	No	906,000	No
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054	0.025	Yes	0.033	Yes
100-K-3_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	262	780	No	840	No
100-K-3_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	35	167	No	273	No
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--	--	--	--
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67	0.18	Yes	0.37	Yes
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481	--	--	--	--
100-K-3_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	522	3,210	No	4,042	No
100-K-3_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.20	1.1	No	1.5	No
100-K-3_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.21	1.1	No	1.2	No
100-K-3_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	53,700	85,100	No	140,000	No
100-K-3_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	45,000	67,800	No	366,000	No
100-K-30_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600	20,000	No	27,700	No
100-K-30_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	69,700	132,000	No	480,000	No
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640	563	Yes	2,980	No
100-K-30_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,200	18,500	No	320,000	No
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702	--	--	--	--
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000	10,200	Yes	74,100	No
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	13	Yes	29	Yes

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-31_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	132,000	Yes	480,000	No
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750	563	Yes	2,980	No
100-K-31_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,300	18,500	No	320,000	No
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220	--	--	--	--
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400	10,200	Yes	74,100	No
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	13	Yes	29	Yes
100-K-31_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	400	780	No	840	No
100-K-32_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,000	20,000	No	27,700	No
100-K-32_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	97,400	132,000	No	480,000	No
100-K-32_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	380	563	No	2,980	No
100-K-32_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,900	18,500	No	320,000	No
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	--	--	--	--
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800	10,200	Yes	74,100	No
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	13	Yes	29	Yes
100-K-33_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,700	20,000	No	27,700	No
100-K-33_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	105,000	132,000	No	480,000	No
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000	563	Yes	2,980	No
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900	18,500	Yes	320,000	No
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400	--	--	--	--
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800	10,200	Yes	74,100	No
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	13	Yes	29	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	417	130	Yes	385	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,670	20,000	No	27,700	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,900	132,000	No	480,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	320	1,510	No	10,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,760	3,890	No	5,860	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	141	563	No	2,980	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,900	18,500	No	320,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,300	15,700	No	110,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	22,000	Yes	61,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124	--	--	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110	10,200	Yes	74,100	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	383,474	512,000	No	1.11E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189	13	Yes	29	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967	470	Yes	3,170	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176	19,100	Yes	200,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	38,265	52,000	No	906,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	754	780	No	840	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700	--	--	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620	--	--	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	675	3,210	No	4,042	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	73,516	85,100	No	140,000	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,300	67,800	No	366,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	7,700	130	Yes	385	Yes
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	14,800	20,000	No	27,700	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,500	132,000	No	480,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	410	1,510	No	10,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950	563	Yes	2,980	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,900	18,500	No	320,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	12,000	15,700	No	110,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500	22,000	Yes	61,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700	2,810	Yes	73,300	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100	10,200	Yes	74,100	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	408,000	512,000	No	1.11E+06	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	13	Yes	29	Yes
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620	470	Yes	3,170	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	19,100	No	200,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	26,600	52,000	No	906,000	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200	780	Yes	840	Yes
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	74	167	No	273	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400	--	--	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800	--	--	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	810	3,210	No	4,042	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200	85,100	Yes	140,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000	67,800	Yes	366,000	No
100-K-34_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,620	20,000	No	27,700	No
100-K-34_Shallow	non-Rad	Barium	7440-39-3	ug/kg	53,400	132,000	No	480,000	No
100-K-34_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	412	1,510	No	10,000	No
100-K-34_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,150	18,500	No	320,000	No
100-K-34_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	11,600	15,700	No	110,000	No
100-K-34_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,600	22,000	No	61,000	No
100-K-34_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,960	10,200	No	74,100	No
100-K-34_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	415,000	512,000	No	1.11E+06	No
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641	470	Yes	3,170	No
100-K-34_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,360	19,100	No	200,000	No
100-K-34_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	5,890	52,000	No	906,000	No
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913	780	Yes	840	Yes
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600	--	--	--	--
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480	--	--	--	--
100-K-34_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	490	3,210	No	4,042	No
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400	85,100	Yes	140,000	No
100-K-34_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,700	67,800	No	366,000	No
100-K-36_Deep_Focused	non-Rad	Antimony	7440-36-0	ug/kg	315	130	Yes	385	No
100-K-36_Deep_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,990	20,000	No	27,700	No
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	132,000	Yes	480,000	No
100-K-36_Deep_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	766	1,510	No	10,000	No
100-K-36_Deep_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,320	3,890	No	5,860	No
100-K-36_Deep_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	175	563	No	2,980	No
100-K-36_Deep_Focused	non-Rad	Chromium	7440-47-3	ug/kg	16,700	18,500	No	320,000	No
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900	15,700	Yes	110,000	No
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500	22,000	Yes	61,000	No
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500	10,200	Yes	74,100	No
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000	512,000	Yes	1.11E+06	No
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27	13	Yes	29	No
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852	470	Yes	3,170	No
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000	19,100	Yes	200,000	No
100-K-36_Deep_Focused	non-Rad	Nitrate	14797-55-8	ug/kg	4,250	52,000	No	906,000	No
100-K-36_Deep_Focused	non-Rad	Silver	7440-22-4	ug/kg	94	167	No	273	No
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200	--	--	--	--
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210	--	--	--	--
100-K-36_Deep_Focused	non-Rad	Uranium	7440-61-1	ug/kg	1,190	3,210	No	4,042	No
100-K-36_Deep_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.14	1.1	No	1.5	No
100-K-36_Deep_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.14	1.1	No	1.2	No
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000	85,100	Yes	140,000	No
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000	67,800	Yes	366,000	No
100-K-36_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,440	20,000	No	27,700	No
100-K-36_Shallow	non-Rad	Barium	7440-39-3	ug/kg	74,300	132,000	No	480,000	No
100-K-36_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	303	1,510	No	10,000	No
100-K-36_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,010	3,890	No	5,860	No
100-K-36_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	563	No	2,980	No
100-K-36_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	8,310	18,500	No	320,000	No
100-K-36_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,020	15,700	No	110,000	No
100-K-36_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,600	22,000	No	61,000	No
100-K-36_Shallow	non-Rad	Lead	7439-92-1	ug/kg	3,980	10,200	No	74,100	No
100-K-36_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	288,000	512,000	No	1.11E+06	No
100-K-36_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	419	470	No	3,170	No
100-K-36_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,300	19,100	No	200,000	No
100-K-36_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	18,900	52,000	No	906,000	No
100-K-36_Shallow	non-Rad	Silver	7440-22-4	ug/kg	36	167	No	273	No
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--	--	--	--
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452	--	--	--	--
100-K-36_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	461	3,210	No	4,042	No
100-K-36_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.19	1.1	No	1.5	No
100-K-36_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	1.1	No	1.2	No
100-K-36_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	45,500	85,100	No	140,000	No
100-K-36_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	42,800	67,800	No	366,000	No
100-K-4_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,884	20,000	No	27,700	No
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000	132,000	Yes	480,000	No
100-K-4_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	200	1,510	No	10,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700	3,890	Yes	5,860	Yes
100-K-4_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.021	1.1	No	1.6	No
100-K-4_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,570	18,500	No	320,000	No
100-K-4_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,770	15,700	No	110,000	No
100-K-4_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,000	22,000	No	61,000	No
100-K-4_Deep	non-Rad	Lead	7439-92-1	ug/kg	4,275	10,200	No	74,100	No
100-K-4_Deep	non-Rad	Manganese	7439-96-5	ug/kg	353,591	512,000	No	1.11E+06	No
100-K-4_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	385	470	No	3,170	No
100-K-4_Deep	non-Rad	Nickel	7440-02-0	ug/kg	6,416	19,100	No	200,000	No
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	780	Yes	840	Yes
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010	--	--	--	--
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430	--	--	--	--
100-K-4_Deep	non-Rad	Uranium	7440-61-1	ug/kg	1,030	3,210	No	4,042	No
100-K-4_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	1.1	No	1.5	No
100-K-4_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.69	1.1	No	1.2	No
100-K-4_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	59,126	85,100	No	140,000	No
100-K-4_Deep	non-Rad	Zinc	7440-66-6	ug/kg	37,800	67,800	No	366,000	No
100-K-4_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	320	130	Yes	385	No
100-K-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,410	20,000	No	27,700	No
100-K-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	72,700	132,000	No	480,000	No
100-K-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	250	1,510	No	10,000	No
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800	3,890	Yes	5,860	Yes
100-K-4_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	120	563	No	2,980	No
100-K-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.12	1.1	No	1.6	No
100-K-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,200	18,500	No	320,000	No
100-K-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,550	15,700	No	110,000	No
100-K-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,000	22,000	No	61,000	No
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325	10,200	Yes	74,100	No
100-K-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	313,000	512,000	No	1.11E+06	No
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483	470	Yes	3,170	No
100-K-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,658	19,100	No	200,000	No
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	780	Yes	840	Yes
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529	--	--	--	--
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516	--	--	--	--
100-K-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	640	3,210	No	4,042	No
100-K-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	1.1	No	1.5	No
100-K-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.70	1.1	No	1.2	No
100-K-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	55,990	85,100	No	140,000	No
100-K-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	56,213	67,800	No	366,000	No
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43	--	--	--	--
100-K-46_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,180	130	Yes	385	Yes
100-K-46_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	5,180	20,000	No	27,700	No
100-K-46_Deep	non-Rad	Barium	7440-39-3	ug/kg	79,500	132,000	No	480,000	No
100-K-46_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	436	1,510	No	10,000	No
100-K-46_Deep	non-Rad	Boron	7440-42-8	ug/kg	1,130	3,890	No	5,860	No
100-K-46_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	78	563	No	2,980	No
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6	--	--	--	--
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2	1.1	Yes	1.6	Yes
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500	18,500	Yes	320,000	No
100-K-46_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	11,200	15,700	No	110,000	No
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	22,000	Yes	61,000	Yes
100-K-46_Deep	non-Rad	Lead	7439-92-1	ug/kg	6,930	10,200	No	74,100	No
100-K-46_Deep	non-Rad	Manganese	7439-96-5	ug/kg	416,000	512,000	No	1.11E+06	No
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770	470	Yes	3,170	No
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300	19,100	Yes	200,000	No
100-K-46_Deep	non-Rad	Nitrate	14797-55-8	ug/kg	4,430	52,000	No	906,000	No
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	0.0038	Yes	0.019	Yes
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33	0.025	Yes	0.033	Yes
100-K-46_Deep	non-Rad	Silver	7440-22-4	ug/kg	102	167	No	273	No
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000	--	--	--	--
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99	0.18	Yes	0.37	Yes
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720	--	--	--	--
100-K-46_Deep	non-Rad	Uranium	7440-61-1	ug/kg	583	3,210	No	4,042	No
100-K-46_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-46_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.15	1.1	No	1.2	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-46_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	41,400	85,100	No	140,000	No
100-K-46_Deep	non-Rad	Zinc	7440-66-6	ug/kg	46,500	67,800	No	366,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17	--	--	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Arsenic	7440-38-2	ug/kg	1,330	20,000	No	27,700	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Barium	7440-39-3	ug/kg	53,800	132,000	No	480,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Beryllium	7440-41-7	ug/kg	253	1,510	No	10,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cadmium	7440-43-9	ug/kg	59	563	No	2,980	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cesium-137	10045-97-3	pCi/g	0.67	1.1	No	1.6	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Chromium	7440-47-3	ug/kg	3,420	18,500	No	320,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Cobalt	7440-48-4	ug/kg	8,660	15,700	No	110,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050	0.0084	Yes	0.039	Yes
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Copper	7440-50-8	ug/kg	14,800	22,000	No	61,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68	--	--	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Lead	7439-92-1	ug/kg	2,070	10,200	No	74,100	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Manganese	7439-96-5	ug/kg	248,000	512,000	No	1.11E+06	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	332	470	No	3,170	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Nickel	7440-02-0	ug/kg	5,810	19,100	No	200,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035	0.0038	Yes	0.019	Yes
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23	0.025	Yes	0.033	Yes
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Silver	7440-22-4	ug/kg	27	167	No	273	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600	--	--	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8	0.18	Yes	0.37	Yes
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400	--	--	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Uranium	7440-61-1	ug/kg	389	3,210	No	4,042	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-233/234	U-233/234	pCi/g	0.11	1.1	No	1.5	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Uranium-238	7440-61-1	pCi/g	0.12	1.1	No	1.2	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Vanadium	7440-62-2	ug/kg	58,700	85,100	No	140,000	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Zinc	7440-66-6	ug/kg	39,700	67,800	No	366,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,960	130	Yes	385	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,752	20,000	No	27,700	No
100-K-50, 1607-K2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,832	132,000	No	480,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,384	1,510	No	10,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011	3,890	Yes	5,860	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,916	18,500	No	320,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,506	15,700	No	110,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,182	22,000	No	61,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,809	10,200	No	74,100	No
100-K-50, 1607-K2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,821	512,000	No	1.11E+06	No
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126	13	Yes	29	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565	470	Yes	3,170	No
100-K-50, 1607-K2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,105	19,100	No	200,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	21,751	52,000	No	906,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990	780	Yes	840	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785	167	Yes	273	Yes
100-K-50, 1607-K2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	4,217	--	--	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	80,081	85,100	No	140,000	No
100-K-50, 1607-K2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,702	67,800	No	366,000	No
100-K-53_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,836	20,000	No	27,700	No
100-K-53_Shallow	non-Rad	Barium	7440-39-3	ug/kg	57,754	132,000	No	480,000	No
100-K-53_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	335	1,510	No	10,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-53_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	121	563	No	2,980	No
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	1.1	Yes	1.6	No
100-K-53_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,366	18,500	No	320,000	No
100-K-53_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,340	15,700	No	110,000	No
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208	22,000	Yes	61,000	No
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	--	--	--	--
100-K-53_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,593	10,200	No	74,100	No
100-K-53_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	349,137	512,000	No	1.11E+06	No
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58	13	Yes	29	Yes
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869	470	Yes	3,170	No
100-K-53_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,466	19,100	No	200,000	No
100-K-53_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,885	52,000	No	906,000	No
100-K-53_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	749	780	No	840	No
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344	--	--	--	--
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509	--	--	--	--
100-K-53_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	542	3,210	No	4,042	No
100-K-53_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	75,198	85,100	No	140,000	No
100-K-53_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	54,691	67,800	No	366,000	No
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9	1.1	Yes	1.6	Yes
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59	0.0084	Yes	0.039	Yes
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78	--	--	--	--
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29	0.033	Yes	0.079	Yes
100-K-55:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.28	1.1	No	1.6	No
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19	0.0084	Yes	0.039	Yes
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0	--	--	--	--
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23	0.033	Yes	0.079	Yes
100-K-55:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.61	1.1	No	1.6	No
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11	0.0084	Yes	0.039	Yes
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3	--	--	--	--
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19	0.033	Yes	0.079	Yes
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37	0.18	Yes	0.37	No
100-K-55:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.70	1.1	No	1.5	No
100-K-55:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.78	1.1	No	1.2	No
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26	1.1	Yes	1.6	Yes
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1	0.0084	Yes	0.039	Yes
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31	--	--	--	--
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0	0.033	Yes	0.079	Yes
100-K-56:1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.0	1.1	No	1.6	No
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14	0.0084	Yes	0.039	Yes
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3	--	--	--	--
100-K-56:1_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.31	1.1	No	1.6	No
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15	0.0084	Yes	0.039	Yes
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1	--	--	--	--
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33	0.033	Yes	0.079	Yes
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937	--	--	--	--
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50	0.18	Yes	0.37	Yes
100-K-56:1_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.45	1.1	No	1.5	No
100-K-56:1_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.49	1.1	No	1.2	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,339	20,000	No	27,700	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	66,573	132,000	No	480,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	318	1,510	No	10,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,945	3,890	No	5,860	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	88	563	No	2,980	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7	1.1	Yes	1.6	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,914	18,500	No	320,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,853	15,700	No	110,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	16,707	22,000	No	61,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	0.033	Yes	0.079	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	7,036	10,200	No	74,100	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	317,896	512,000	No	1.11E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482	470	Yes	3,170	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	9,860	19,100	No	200,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Nitrate	14797-55-8	ug/kg	12,545	52,000	No	906,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030	0.0038	Yes	0.019	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13	0.025	Yes	0.033	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	270	780	No	840	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	59	167	No	273	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79	0.18	Yes	0.37	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	518	3,210	No	4,042	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-235	15117-96-1	pCi/g	0.015	0.11	No	0.39	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.16	1.1	No	1.2	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	40,247	85,100	No	140,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	40,250	67,800	No	366,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,925	20,000	No	27,700	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	73,256	132,000	No	480,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	422	1,510	No	10,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	896	3,890	No	5,860	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	92	563	No	2,980	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15	1.1	Yes	1.6	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,333	18,500	No	320,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	11,423	15,700	No	110,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	19,939	22,000	No	61,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	5,256	10,200	No	74,100	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	376,144	512,000	No	1.11E+06	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595	470	Yes	3,170	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	10,901	19,100	No	200,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Nitrate	14797-55-8	ug/kg	6,216	52,000	No	906,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23	0.0038	Yes	0.019	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2	0.025	Yes	0.033	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	324	780	No	840	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Silver	7440-22-4	ug/kg	75	167	No	273	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11	0.18	Yes	0.37	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3	--	--	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	591	3,210	No	4,042	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.18	1.1	No	1.5	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-235	15117-96-1	pCi/g	0.022	0.11	No	0.39	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.18	1.1	No	1.2	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	64,300	85,100	No	140,000	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	51,024	67,800	No	366,000	No
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055	--	--	--	--
100-K-6_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,280	20,000	No	27,700	No
100-K-6_Shallow	non-Rad	Barium	7440-39-3	ug/kg	61,100	132,000	No	480,000	No
100-K-6_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	339	1,510	No	10,000	No
100-K-6_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	81	563	No	2,980	No
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	--	--	--	--
100-K-6_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.51	1.1	No	1.6	No
100-K-6_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	5,290	18,500	No	320,000	No
100-K-6_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,310	15,700	No	110,000	No
100-K-6_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,700	22,000	No	61,000	No
100-K-6_Shallow	non-Rad	Lead	7439-92-1	ug/kg	4,070	10,200	No	74,100	No
100-K-6_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	279,000	512,000	No	1.11E+06	No
100-K-6_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	470	No	3,170	No
100-K-6_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	7,270	19,100	No	200,000	No
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042	0.025	Yes	0.033	Yes
100-K-6_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	281	780	No	840	No
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800	--	--	--	--
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477	--	--	--	--
100-K-6_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	477	3,210	No	4,042	No
100-K-6_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.16	1.1	No	1.5	No
100-K-6_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.019	0.11	No	0.39	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-6_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.20	1.1	No	1.2	No
100-K-6_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	42,300	85,100	No	140,000	No
100-K-6_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	40,700	67,800	No	366,000	No
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17	--	--	--	--
100-K-62_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	1,290	20,000	No	27,700	No
100-K-62_Shallow	non-Rad	Barium	7440-39-3	ug/kg	50,500	132,000	No	480,000	No
100-K-62_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	228	1,510	No	10,000	No
100-K-62_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	55	563	No	2,980	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	--	--	--	--
100-K-62_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.84	1.1	No	1.6	No
100-K-62_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	3,950	18,500	No	320,000	No
100-K-62_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,370	15,700	No	110,000	No
100-K-62_Shallow	non-Rad	Copper	7440-50-8	ug/kg	14,900	22,000	No	61,000	No
100-K-62_Shallow	non-Rad	Lead	7439-92-1	ug/kg	2,330	10,200	No	74,100	No
100-K-62_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	261,000	512,000	No	1.11E+06	No
100-K-62_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	303	470	No	3,170	No
100-K-62_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	5,970	19,100	No	200,000	No
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	0.0038	Yes	0.019	Yes
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20	0.025	Yes	0.033	Yes
100-K-62_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	312	780	No	840	No
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900	--	--	--	--
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76	0.18	Yes	0.37	Yes
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383	--	--	--	--
100-K-62_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	357	3,210	No	4,042	No
100-K-62_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.12	1.1	No	1.5	No
100-K-62_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.013	0.11	No	0.39	No
100-K-62_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.16	1.1	No	1.2	No
100-K-62_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	47,000	85,100	No	140,000	No
100-K-62_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	35,000	67,800	No	366,000	No
100-K-63_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	190	130	Yes	385	No
100-K-63_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	3,008	20,000	No	27,700	No
100-K-63_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	69,197	132,000	No	480,000	No
100-K-63_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	345	1,510	No	10,000	No
100-K-63_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	2,954	3,890	No	5,860	No
100-K-63_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	189	563	No	2,980	No
100-K-63_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.31	1.1	No	1.6	No
100-K-63_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,051	18,500	No	320,000	No
100-K-63_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,147	15,700	No	110,000	No
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023	0.0084	Yes	0.039	No
100-K-63_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	19,275	22,000	No	61,000	No
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19	--	--	--	--
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	0.033	Yes	0.079	Yes
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20	0.054	Yes	0.098	Yes
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152	--	--	--	--
100-K-63_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	9,659	10,200	No	74,100	No
100-K-63_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	362,077	512,000	No	1.11E+06	No
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14	13	Yes	29	No
100-K-63_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	450	470	No	3,170	No
100-K-63_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	13,324	19,100	No	200,000	No
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	780	Yes	840	Yes
100-K-63_Shallow_1	non-Rad	Silver	7440-22-4	ug/kg	55	167	No	273	No
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553	--	--	--	--
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1	0.18	Yes	0.37	Yes
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937	--	--	--	--
100-K-63_Shallow_1	non-Rad	Uranium	7440-61-1	ug/kg	516	3,210	No	4,042	No
100-K-63_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,351	85,100	No	140,000	No
100-K-63_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	58,669	67,800	No	366,000	No
100-K-63_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	316	130	Yes	385	No
100-K-63_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	3,876	20,000	No	27,700	No
100-K-63_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	78,317	132,000	No	480,000	No
100-K-63_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	353	1,510	No	10,000	No
100-K-63_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,021	3,890	No	5,860	No
100-K-63_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	178	563	No	2,980	No
100-K-63_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.41	1.1	No	1.6	No
100-K-63_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	17,235	18,500	No	320,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-63_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,831	15,700	No	110,000	No
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041	0.0084	Yes	0.039	Yes
100-K-63_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	16,680	22,000	No	61,000	No
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091	--	--	--	--
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14	0.033	Yes	0.079	Yes
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047	10,200	Yes	74,100	No
100-K-63_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	328,776	512,000	No	1.11E+06	No
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675	470	Yes	3,170	No
100-K-63_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	15,105	19,100	No	200,000	No
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874	780	Yes	840	Yes
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140	--	--	--	--
100-K-63_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.16	0.18	No	0.37	No
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467	--	--	--	--
100-K-63_Shallow_2	non-Rad	Uranium	7440-61-1	ug/kg	690	3,210	No	4,042	No
100-K-63_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	47,404	85,100	No	140,000	No
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	67,800	Yes	366,000	No
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57	--	--	--	--
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2	--	--	--	--
100-K-77_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,110	130	Yes	385	Yes
100-K-77_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	9,888	20,000	No	27,700	No
100-K-77_Shallow	non-Rad	Barium	7440-39-3	ug/kg	84,028	132,000	No	480,000	No
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13	--	--	--	--
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--	--	--	--
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2	--	--	--	--
100-K-77_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	410	1,510	No	10,000	No
100-K-77_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	277	563	No	2,980	No
100-K-77_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.47	1.1	No	1.6	No
100-K-77_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	16,273	18,500	No	320,000	No
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13	--	--	--	--
100-K-77_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	10,800	15,700	No	110,000	No
100-K-77_Shallow	non-Rad	Copper	7440-50-8	ug/kg	18,900	22,000	No	61,000	No
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--	--	--	--
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8	--	--	--	--
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130	--	--	--	--
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17	--	--	--	--
100-K-77_Shallow	non-Rad	Lead	7439-92-1	ug/kg	7,200	10,200	No	74,100	No
100-K-77_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	512,000	No	1.11E+06	No
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389	470	Yes	3,170	No
100-K-77_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	13,419	19,100	No	200,000	No
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--	--	--	--
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927	780	Yes	840	Yes
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917	--	--	--	--
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160	--	--	--	--
100-K-77_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	771	3,210	No	4,042	No
100-K-77_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,900	85,100	No	140,000	No
100-K-77_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	58,200	67,800	No	366,000	No
100-K-78_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.08E+07	1.18E+07	No	2.88E+07	No
100-K-78_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	391	130	Yes	385	Yes
100-K-78_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	4,330	20,000	No	27,700	No
100-K-78_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	85,300	132,000	No	480,000	No
100-K-78_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	357	1,510	No	10,000	No
100-K-78_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,570	3,890	No	5,860	No
100-K-78_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	136	563	No	2,980	No
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7	--	--	--	--
100-K-78_Shallow_Focused	Rad	Cesium-137	10045-97-3	pCi/g	0.32	1.1	No	1.6	No
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	18,500	Yes	320,000	No
100-K-78_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,110	15,700	No	110,000	No
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073	0.0084	Yes	0.039	Yes
100-K-78_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	22,000	No	61,000	No
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27	--	--	--	--
100-K-78_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.96E+07	3.26E+07	No	6.81E+07	No
100-K-78_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,380	10,200	No	74,100	No
100-K-78_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	288,000	512,000	No	1.11E+06	No
100-K-78_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	452	470	No	3,170	No
100-K-78_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,800	19,100	No	200,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2	--	--	--	--
100-K-78_Shallow_Focused	Rad	Uranium-233/234	U-233/234	pCi/g	0.84	1.1	No	1.5	No
100-K-78_Shallow_Focused	Rad	Uranium-235	15117-96-1	pCi/g	0.048	0.11	No	0.39	No
100-K-78_Shallow_Focused	Rad	Uranium-238	7440-61-1	pCi/g	0.93	1.1	No	1.2	No
100-K-78_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	42,900	85,100	No	140,000	No
100-K-78_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,000	67,800	No	366,000	No
100-K-84_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.24E+06	1.18E+07	No	2.88E+07	No
100-K-84_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	6,390	20,000	No	27,700	No
100-K-84_Shallow	non-Rad	Barium	7440-39-3	ug/kg	66,104	132,000	No	480,000	No
100-K-84_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	555	1,510	No	10,000	No
100-K-84_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,361	3,890	No	5,860	No
100-K-84_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	66	563	No	2,980	No
100-K-84_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	9,253	18,500	No	320,000	No
100-K-84_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,127	15,700	No	110,000	No
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	22,000	Yes	61,000	No
100-K-84_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.49E+07	3.26E+07	No	6.81E+07	No
100-K-84_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,746	10,200	No	74,100	No
100-K-84_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	339,331	512,000	No	1.11E+06	No
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	13	Yes	29	Yes
100-K-84_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	345	470	No	3,170	No
100-K-84_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,755	19,100	No	200,000	No
100-K-84_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	58,919	85,100	No	140,000	No
100-K-84_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	52,211	67,800	No	366,000	No
100-K-85_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	7.65E+06	1.18E+07	No	2.88E+07	No
100-K-85_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
100-K-85_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	56,700	132,000	No	480,000	No
100-K-85_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	230	1,510	No	10,000	No
100-K-85_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,100	3,890	No	5,860	No
100-K-85_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	62	563	No	2,980	No
100-K-85_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	7,800	18,500	No	320,000	No
100-K-85_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,400	15,700	No	110,000	No
100-K-85_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,100	22,000	No	61,000	No
100-K-85_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.27E+07	3.26E+07	No	6.81E+07	No
100-K-85_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,800	10,200	No	74,100	No
100-K-85_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	327,000	512,000	No	1.11E+06	No
100-K-85_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	9.9	13	No	29	No
100-K-85_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	360	470	No	3,170	No
100-K-85_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,900	19,100	No	200,000	No
100-K-85_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	52,800	85,100	No	140,000	No
100-K-85_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	46,500	67,800	No	366,000	No
100-K-86_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.78E+06	1.18E+07	No	2.88E+07	No
100-K-86_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	470	130	Yes	385	Yes
100-K-86_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
100-K-86_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,100	132,000	No	480,000	No
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	430	1,510	No	10,000	No
100-K-86_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	1,900	3,890	No	5,860	No
100-K-86_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	58	563	No	2,980	No
100-K-86_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	10,900	18,500	No	320,000	No
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,900	15,700	No	110,000	No
100-K-86_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	18,500	22,000	No	61,000	No
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.38E+07	3.26E+07	No	6.81E+07	No
100-K-86_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	6,000	10,200	No	74,100	No
100-K-86_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	399,000	512,000	No	1.11E+06	No
100-K-86_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	470	No	3,170	No
100-K-86_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	10,500	19,100	No	200,000	No
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	84,000	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	160,000	--	--	--	--
100-K-86_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	58,900	85,100	No	140,000	No
100-K-86_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	48,800	67,800	No	366,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-88_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.35E+06	1.18E+07	No	2.88E+07	No
100-K-88_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	890	130	Yes	385	Yes
100-K-88_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	9,100	20,000	No	27,700	No
100-K-88_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	103,000	132,000	No	480,000	No
100-K-88_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	210	1,510	No	10,000	No
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500	3,890	Yes	5,860	Yes
100-K-88_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	15,400	18,500	No	320,000	No
100-K-88_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	4,400	15,700	No	110,000	No
100-K-88_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,000	22,000	No	61,000	No
100-K-88_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.34E+07	3.26E+07	No	6.81E+07	No
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100	10,200	Yes	74,100	No
100-K-88_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	258,000	512,000	No	1.11E+06	No
100-K-88_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	7.2	13	No	29	No
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980	470	Yes	3,170	No
100-K-88_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,100	19,100	No	200,000	No
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200	780	Yes	840	Yes
100-K-88_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	33,600	85,100	No	140,000	No
100-K-88_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	52,100	67,800	No	366,000	No
100-K-89, 600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	1.18E+07	No	2.88E+07	No
100-K-89, 600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	434	130	Yes	385	Yes
100-K-89, 600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	4,084	20,000	No	27,700	No
100-K-89, 600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	80,487	132,000	No	480,000	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	686	1,510	No	10,000	No
100-K-89, 600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	2,117	3,890	No	5,860	No
100-K-89, 600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	88	563	No	2,980	No
100-K-89, 600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	12,216	18,500	No	320,000	No
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,924	15,700	No	110,000	No
100-K-89, 600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	15,869	22,000	No	61,000	No
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	3.26E+07	No	6.81E+07	No
100-K-89, 600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,445	10,200	No	74,100	No
100-K-89, 600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	406,274	512,000	No	1.11E+06	No
100-K-89, 600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	5.7	13	No	29	No
100-K-89, 600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	270	470	No	3,170	No
100-K-89, 600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,496	19,100	No	200,000	No
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896	780	Yes	840	Yes
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	31,656	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	59,899	--	--	--	--
100-K-89, 600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	60,142	85,100	No	140,000	No
100-K-89, 600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	47,545	67,800	No	366,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.09E+07	1.18E+07	No	2.88E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	4,100	130	Yes	385	Yes
100-K-89, 600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	15,400	20,000	No	27,700	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	84,500	132,000	No	480,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	710	1,510	No	10,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,500	3,890	No	5,860	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	130	563	No	2,980	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,200	18,500	No	320,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	15,700	No	110,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500	22,000	Yes	61,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.46E+07	3.26E+07	No	6.81E+07	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900	10,200	Yes	74,100	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	410,000	512,000	No	1.11E+06	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	13	Yes	29	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	440	470	No	3,170	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	12,800	19,100	No	200,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890	780	Yes	840	Yes
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	90,000	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	140,000	--	--	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	57,600	85,100	No	140,000	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000	67,800	Yes	366,000	No
100-K-90_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	1.65E+06	1.18E+07	No	2.88E+07	No
100-K-90_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	17,000	132,000	No	480,000	No
100-K-90_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	58	1,510	No	10,000	No
100-K-90_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	1,400	18,500	No	320,000	No
100-K-90_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	1,600	15,700	No	110,000	No
100-K-90_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	3,600	22,000	No	61,000	No
100-K-90_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	4.25E+06	3.26E+07	No	6.81E+07	No
100-K-90_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	2,700	10,200	No	74,100	No
100-K-90_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	61,700	512,000	No	1.11E+06	No
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17	13	Yes	29	No
100-K-90_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	350	470	No	3,170	No
100-K-90_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	1,900	19,100	No	200,000	No
100-K-90_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	11,000	85,100	No	140,000	No
100-K-90_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	14,100	67,800	No	366,000	No
100-K-91_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	1.18E+07	No	2.88E+07	No
100-K-91_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,300	20,000	No	27,700	No
100-K-91_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	62,100	132,000	No	480,000	No
100-K-91_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	320	1,510	No	10,000	No
100-K-91_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	3,890	No	5,860	No
100-K-91_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,800	18,500	No	320,000	No
100-K-91_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	6,800	15,700	No	110,000	No
100-K-91_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	13,500	22,000	No	61,000	No
100-K-91_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	1.74E+07	3.26E+07	No	6.81E+07	No
100-K-91_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,300	10,200	No	74,100	No
100-K-91_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	291,000	512,000	No	1.11E+06	No
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	13	Yes	29	Yes
100-K-91_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	9,600	19,100	No	200,000	No
100-K-91_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	36,800	85,100	No	140,000	No
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000	67,800	Yes	366,000	No
100-K-92_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	8.86E+06	1.18E+07	No	2.88E+07	No
100-K-92_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,900	20,000	No	27,700	No
100-K-92_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	70,900	132,000	No	480,000	No
100-K-92_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	390	1,510	No	10,000	No
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76	--	--	--	--
100-K-92_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,300	3,890	No	5,860	No
100-K-92_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	140	563	No	2,980	No
100-K-92_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	9,600	18,500	No	320,000	No
100-K-92_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	8,800	15,700	No	110,000	No
100-K-92_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	19,500	22,000	No	61,000	No
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216	--	--	--	--
100-K-92_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.09E+07	3.26E+07	No	6.81E+07	No
100-K-92_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	8,300	10,200	No	74,100	No
100-K-92_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	362,000	512,000	No	1.11E+06	No
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700	470	Yes	3,170	No
100-K-92_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	11,200	19,100	No	200,000	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	14,000	--	--	--	--
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	29,000	--	--	--	--
100-K-92_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	46,400	85,100	No	140,000	No
100-K-92_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	47,100	67,800	No	366,000	No
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19	--	--	--	--
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54	--	--	--	--
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27	--	--	--	--
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45	--	--	--	--
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18	--	--	--	--
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59	--	--	--	--
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9	--	--	--	--
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20	--	--	--	--
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--	--	--	--
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104	--	--	--	--
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	38,541	--	--	--	--
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,020	--	--	--	--
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15	1.1	Yes	1.6	Yes
116-K-1_Deep	non-Rad	Chromium	7440-47-3	ug/kg	14,607	18,500	No	320,000	No
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5	0.0084	Yes	0.039	Yes
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5	--	--	--	--
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0	0.033	Yes	0.079	Yes
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560	--	--	--	--
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6	0.18	Yes	0.37	Yes
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	1.1	Yes	1.6	No
116-K-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	13,705	18,500	No	320,000	No
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	0.0084	Yes	0.039	No
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23	--	--	--	--
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260	--	--	--	--
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7	0.18	Yes	0.37	Yes
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9	--	--	--	--
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0	--	--	--	--
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140	1.1	Yes	1.6	Yes
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8	0.0084	Yes	0.039	Yes
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69	--	--	--	--
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2	0.033	Yes	0.079	Yes
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	--	--	--	--
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995	--	--	--	--
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72	0.0038	Yes	0.019	Yes
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9	0.025	Yes	0.033	Yes
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7	0.18	Yes	0.37	Yes
116-K-2_Deep_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.86	1.1	No	1.5	No
116-K-2_Deep_1	Rad	Uranium-235	15117-96-1	pCi/g	0.044	0.11	No	0.39	No
116-K-2_Deep_1	Rad	Uranium-238	7440-61-1	pCi/g	0.73	1.1	No	1.2	No
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9	--	--	--	--
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	--	--	--	--
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144	1.1	Yes	1.6	Yes
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4	0.0084	Yes	0.039	Yes
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82	--	--	--	--
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12	0.033	Yes	0.079	Yes
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688	--	--	--	--
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659	--	--	--	--
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24	0.0038	Yes	0.019	Yes
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0	0.025	Yes	0.033	Yes
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7	0.18	Yes	0.37	Yes
116-K-2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.75	1.1	No	1.5	No
116-K-2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.73	1.1	No	1.2	No
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0	--	--	--	--
116-K-2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.63	1.1	No	1.6	No
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35	--	--	--	--
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670	--	--	--	--
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8	--	--	--	--
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19	0.18	Yes	0.37	No
116-K-2_Shallow_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	1.1	No	1.5	No
116-K-2_Shallow_1	Rad	Uranium-238	7440-61-1	pCi/g	0.61	1.1	No	1.2	No
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0	1.1	Yes	1.6	Yes
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68	--	--	--	--
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17	0.033	Yes	0.079	Yes
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250	--	--	--	--
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0	--	--	--	--
116-K-2_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.15	0.18	No	0.37	No
116-K-2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	1.1	No	1.5	No
116-K-2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.67	1.1	No	1.2	No
116-KE-4_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.22	1.1	No	1.6	No
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086	0.0084	Yes	0.039	Yes
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19	0.033	Yes	0.079	Yes
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211	--	--	--	--
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0	--	--	--	--
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21	0.18	Yes	0.37	No
116-KE-4_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	1.1	No	1.5	No
116-KE-4_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.020	0.11	No	0.39	No
116-KE-4_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.56	1.1	No	1.2	No
116-KE-5_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000	No	27,700	No
116-KE-5_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	100,000	132,000	No	480,000	No
116-KE-5_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	195	563	No	2,980	No
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	18,500	Yes	320,000	No
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038	--	--	--	--
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330	--	--	--	--
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300	10,200	Yes	74,100	No
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102	13	Yes	29	Yes
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53	--	--	--	--
116-KW-3_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.18	1.1	No	1.6	No
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10	0.0084	Yes	0.039	Yes
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5	--	--	--	--
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26	0.033	Yes	0.079	Yes
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543	--	--	--	--
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92	0.025	Yes	0.033	Yes
116-KW-3_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	1.1	No	1.5	No
116-KW-3_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.039	0.11	No	0.39	No
116-KW-3_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.65	1.1	No	1.2	No
116-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,600	20,000	No	27,700	No
116-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	59,300	132,000	No	480,000	No
116-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,100	18,500	No	320,000	No
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240	--	--	--	--
116-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	4,500	10,200	No	74,100	No
118-K-1_P1_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.11E+06	1.18E+07	No	2.88E+07	No
118-K-1_P1_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
118-K-1_P1_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	61,500	132,000	No	480,000	No
118-K-1_P1_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	600	1,510	No	10,000	No
118-K-1_P1_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	3,890	No	5,860	No
118-K-1_P1_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	563	No	2,980	No
118-K-1_P1_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	11,000	18,500	No	320,000	No
118-K-1_P1_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	8,300	15,700	No	110,000	No
118-K-1_P1_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	17,875	22,000	No	61,000	No
118-K-1_P1_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.86E+07	3.26E+07	No	6.81E+07	No
118-K-1_P1_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	4,680	10,200	No	74,100	No
118-K-1_P1_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	366,000	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588	470	Yes	3,170	No
118-K-1_P1_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	11,600	19,100	No	200,000	No
118-K-1_P1_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	73,527	85,100	No	140,000	No
118-K-1_P1_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	56,000	67,800	No	366,000	No
118-K-1_P1_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	8.68E+06	1.18E+07	No	2.88E+07	No
118-K-1_P1_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	4,288	20,000	No	27,700	No
118-K-1_P1_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	74,500	132,000	No	480,000	No
118-K-1_P1_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	388	1,510	No	10,000	No
118-K-1_P1_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	2,600	3,890	No	5,860	No
118-K-1_P1_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	288	563	No	2,980	No
118-K-1_P1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.18	1.1	No	1.6	No
118-K-1_P1_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	12,792	18,500	No	320,000	No
118-K-1_P1_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	9,972	15,700	No	110,000	No
118-K-1_P1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	22,271	22,000	Yes	61,000	No
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33	--	--	--	--
118-K-1_P1_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	2.81E+07	3.26E+07	No	6.81E+07	No
118-K-1_P1_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	6,680	10,200	No	74,100	No
118-K-1_P1_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	389,000	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776	470	Yes	3,170	No
118-K-1_P1_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	13,200	19,100	No	200,000	No
118-K-1_P1_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	71,916	85,100	No	140,000	No
118-K-1_P1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	75,395	67,800	Yes	366,000	No
118-K-1_P1_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	8.17E+06	1.18E+07	No	2.88E+07	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P1_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,819	20,000	No	27,700	No
118-K-1_P1_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	66,135	132,000	No	480,000	No
118-K-1_P1_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	700	1,510	No	10,000	No
118-K-1_P1_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,425	3,890	No	5,860	No
118-K-1_P1_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	200	563	No	2,980	No
118-K-1_P1_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	11,165	18,500	No	320,000	No
118-K-1_P1_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	15,700	No	110,000	No
118-K-1_P1_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	16,900	22,000	No	61,000	No
118-K-1_P1_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	3.36E+07	3.26E+07	Yes	6.81E+07	No
118-K-1_P1_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,143	10,200	No	74,100	No
118-K-1_P1_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	391,000	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588	470	Yes	3,170	No
118-K-1_P1_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	11,000	19,100	No	200,000	No
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500	85,100	Yes	140,000	No
118-K-1_P1_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	60,700	67,800	No	366,000	No
118-K-1_P1_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	1.03E+07	1.18E+07	No	2.88E+07	No
118-K-1_P1_Shallow_4	non-Rad	Antimony	7440-36-0	ug/kg	400	130	Yes	385	Yes
118-K-1_P1_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	5,303	20,000	No	27,700	No
118-K-1_P1_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	88,103	132,000	No	480,000	No
118-K-1_P1_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	725	1,510	No	10,000	No
118-K-1_P1_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	2,411	3,890	No	5,860	No
118-K-1_P1_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	337	563	No	2,980	No
118-K-1_P1_Shallow_4	Rad	Cesium-137	10045-97-3	pCi/g	0.32	1.1	No	1.6	No
118-K-1_P1_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	14,500	18,500	No	320,000	No
118-K-1_P1_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,924	15,700	No	110,000	No
118-K-1_P1_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	19,645	22,000	No	61,000	No
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13	--	--	--	--
118-K-1_P1_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.57E+07	3.26E+07	No	6.81E+07	No
118-K-1_P1_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	6,506	10,200	No	74,100	No
118-K-1_P1_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	400,414	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_4	non-Rad	Mercury	7439-97-6	ug/kg	10	13	No	29	No
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746	470	Yes	3,170	No
118-K-1_P1_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	13,367	19,100	No	200,000	No
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6	0.18	Yes	0.37	Yes
118-K-1_P1_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,733	85,100	No	140,000	No
118-K-1_P1_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	56,062	67,800	No	366,000	No
118-K-1_P1_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	9.57E+06	1.18E+07	No	2.88E+07	No
118-K-1_P1_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	3,708	20,000	No	27,700	No
118-K-1_P1_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	72,800	132,000	No	480,000	No
118-K-1_P1_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	700	1,510	No	10,000	No
118-K-1_P1_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,900	3,890	No	5,860	No
118-K-1_P1_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	200	563	No	2,980	No
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5	1.1	Yes	1.6	Yes
118-K-1_P1_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	12,800	18,500	No	320,000	No
118-K-1_P1_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	10,275	15,700	No	110,000	No
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082	0.0084	Yes	0.039	Yes
118-K-1_P1_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,400	22,000	No	61,000	No
118-K-1_P1_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	2.87E+07	3.26E+07	No	6.81E+07	No
118-K-1_P1_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	5,650	10,200	No	74,100	No
118-K-1_P1_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	416,000	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride	75-09-2	ug/kg	6.0	--	--	--	--
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600	470	Yes	3,170	No
118-K-1_P1_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	13,483	19,100	No	200,000	No
118-K-1_P1_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	77,441	52,000	Yes	906,000	No
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073	0.025	Yes	0.033	Yes
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86	0.18	Yes	0.37	Yes
118-K-1_P1_Shallow_5	Rad	Uranium-233/234	U-233/234	pCi/g	1.0	1.1	No	1.5	No
118-K-1_P1_Shallow_5	Rad	Uranium-238	7440-61-1	pCi/g	0.79	1.1	No	1.2	No
118-K-1_P1_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	74,400	85,100	No	140,000	No
118-K-1_P1_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	58,098	67,800	No	366,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	8.76E+06	1.18E+07	No	2.88E+07	No
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093	--	--	--	--
118-K-1_P1_Shallow_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	4,800	20,000	No	27,700	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	68,600	132,000	No	480,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	400	1,510	No	10,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P1_Shallow_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,300	3,890	No	5,860	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	200	563	No	2,980	No
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7	1.1	Yes	1.6	Yes
118-K-1_P1_Shallow_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	10,500	18,500	No	320,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	9,800	15,700	No	110,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	21,200	22,000	No	61,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	2.82E+07	3.26E+07	No	6.81E+07	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	6,600	10,200	No	74,100	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	408,000	512,000	No	1.11E+06	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0	--	--	--	--
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600	470	Yes	3,170	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	11,400	19,100	No	200,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Nitrate	14797-55-8	ug/kg	18,100	52,000	No	906,000	No
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087	0.025	Yes	0.033	Yes
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0	0.18	Yes	0.37	Yes
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.62	1.1	No	1.5	No
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-235	15117-96-1	pCi/g	0.046	0.11	No	0.39	No
118-K-1_P1_Shallow_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	1.1	No	1.2	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	69,700	85,100	No	140,000	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	57,500	67,800	No	366,000	No
118-K-1_P2_Deep_2	non-Rad	Aluminum	7429-90-5	ug/kg	4.93E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30	--	--	--	--
118-K-1_P2_Deep_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,380	20,000	No	27,700	No
118-K-1_P2_Deep_2	non-Rad	Barium	7440-39-3	ug/kg	50,741	132,000	No	480,000	No
118-K-1_P2_Deep_2	non-Rad	Beryllium	7440-41-7	ug/kg	235	1,510	No	10,000	No
118-K-1_P2_Deep_2	non-Rad	Boron	7440-42-8	ug/kg	648	3,890	No	5,860	No
118-K-1_P2_Deep_2	non-Rad	Cadmium	7440-43-9	ug/kg	119	563	No	2,980	No
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5	--	--	--	--
118-K-1_P2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	0.093	1.1	No	1.6	No
118-K-1_P2_Deep_2	non-Rad	Chromium	7440-47-3	ug/kg	5,327	18,500	No	320,000	No
118-K-1_P2_Deep_2	non-Rad	Cobalt	7440-48-4	ug/kg	7,270	15,700	No	110,000	No
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23	0.0084	Yes	0.039	Yes
118-K-1_P2_Deep_2	non-Rad	Copper	7440-50-8	ug/kg	14,311	22,000	No	61,000	No
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46	--	--	--	--
118-K-1_P2_Deep_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_2	non-Rad	Lead	7439-92-1	ug/kg	3,034	10,200	No	74,100	No
118-K-1_P2_Deep_2	non-Rad	Manganese	7439-96-5	ug/kg	289,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_2	non-Rad	Molybdenum	7439-98-7	ug/kg	307	470	No	3,170	No
118-K-1_P2_Deep_2	non-Rad	Nickel	7440-02-0	ug/kg	8,045	19,100	No	200,000	No
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11	--	--	--	--
118-K-1_P2_Deep_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	1.1	No	1.5	No
118-K-1_P2_Deep_2	Rad	Uranium-238	7440-61-1	pCi/g	0.64	1.1	No	1.2	No
118-K-1_P2_Deep_2	non-Rad	Vanadium	7440-62-2	ug/kg	57,754	85,100	No	140,000	No
118-K-1_P2_Deep_2	non-Rad	Zinc	7440-66-6	ug/kg	59,990	67,800	No	366,000	No
118-K-1_P2_Deep_3	non-Rad	Aluminum	7429-90-5	ug/kg	4.75E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24	--	--	--	--
118-K-1_P2_Deep_3	non-Rad	Arsenic	7440-38-2	ug/kg	1,740	20,000	No	27,700	No
118-K-1_P2_Deep_3	non-Rad	Barium	7440-39-3	ug/kg	47,321	132,000	No	480,000	No
118-K-1_P2_Deep_3	non-Rad	Beryllium	7440-41-7	ug/kg	217	1,510	No	10,000	No
118-K-1_P2_Deep_3	non-Rad	Boron	7440-42-8	ug/kg	616	3,890	No	5,860	No
118-K-1_P2_Deep_3	non-Rad	Cadmium	7440-43-9	ug/kg	62	563	No	2,980	No
118-K-1_P2_Deep_3	Rad	Carbon-14	14762-75-5	pCi/g	2.3	--	--	--	--
118-K-1_P2_Deep_3	Rad	Cesium-137	10045-97-3	pCi/g	0.77	1.1	No	1.6	No
118-K-1_P2_Deep_3	non-Rad	Chromium	7440-47-3	ug/kg	4,002	18,500	No	320,000	No
118-K-1_P2_Deep_3	non-Rad	Cobalt	7440-48-4	ug/kg	7,197	15,700	No	110,000	No
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69	0.0084	Yes	0.039	Yes
118-K-1_P2_Deep_3	non-Rad	Copper	7440-50-8	ug/kg	13,000	22,000	No	61,000	No
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1	--	--	--	--
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43	0.033	Yes	0.079	Yes
118-K-1_P2_Deep_3	non-Rad	Iron	7439-89-6	ug/kg	2.22E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_3	non-Rad	Lead	7439-92-1	ug/kg	2,370	10,200	No	74,100	No
118-K-1_P2_Deep_3	non-Rad	Manganese	7439-96-5	ug/kg	276,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_3	non-Rad	Mercury	7439-97-6	ug/kg	9.2	13	No	29	No
118-K-1_P2_Deep_3	non-Rad	Molybdenum	7439-98-7	ug/kg	338	470	No	3,170	No
118-K-1_P2_Deep_3	non-Rad	Nickel	7440-02-0	ug/kg	7,219	19,100	No	200,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38	--	--	--	--
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.82	1.1	No	1.5	No
118-K-1_P2_Deep_3	Rad	Uranium-238	7440-61-1	pCi/g	0.70	1.1	No	1.2	No
118-K-1_P2_Deep_3	non-Rad	Vanadium	7440-62-2	ug/kg	67,900	85,100	No	140,000	No
118-K-1_P2_Deep_3	non-Rad	Zinc	7440-66-6	ug/kg	41,900	67,800	No	366,000	No
118-K-1_P2_Deep_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.12E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_4	non-Rad	Arsenic	7440-38-2	ug/kg	2,110	20,000	No	27,700	No
118-K-1_P2_Deep_4	non-Rad	Barium	7440-39-3	ug/kg	49,958	132,000	No	480,000	No
118-K-1_P2_Deep_4	non-Rad	Beryllium	7440-41-7	ug/kg	246	1,510	No	10,000	No
118-K-1_P2_Deep_4	non-Rad	Boron	7440-42-8	ug/kg	1,010	3,890	No	5,860	No
118-K-1_P2_Deep_4	non-Rad	Cadmium	7440-43-9	ug/kg	58	563	No	2,980	No
118-K-1_P2_Deep_4	Rad	Cesium-137	10045-97-3	pCi/g	0.50	1.1	No	1.6	No
118-K-1_P2_Deep_4	non-Rad	Chromium	7440-47-3	ug/kg	6,990	18,500	No	320,000	No
118-K-1_P2_Deep_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,410	15,700	No	110,000	No
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17	0.0084	Yes	0.039	Yes
118-K-1_P2_Deep_4	non-Rad	Copper	7440-50-8	ug/kg	13,100	22,000	No	61,000	No
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3	--	--	--	--
118-K-1_P2_Deep_4	non-Rad	Iron	7439-89-6	ug/kg	2.16E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_4	non-Rad	Lead	7439-92-1	ug/kg	3,380	10,200	No	74,100	No
118-K-1_P2_Deep_4	non-Rad	Manganese	7439-96-5	ug/kg	285,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100	470	Yes	3,170	No
118-K-1_P2_Deep_4	non-Rad	Nickel	7440-02-0	ug/kg	8,510	19,100	No	200,000	No
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4	--	--	--	--
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68	0.18	Yes	0.37	Yes
118-K-1_P2_Deep_4	Rad	Tritium	10028-17-8	pCi/g	5.2	--	--	--	--
118-K-1_P2_Deep_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.67	1.1	No	1.5	No
118-K-1_P2_Deep_4	Rad	Uranium-235	15117-96-1	pCi/g	0.041	0.11	No	0.39	No
118-K-1_P2_Deep_4	Rad	Uranium-238	7440-61-1	pCi/g	0.71	1.1	No	1.2	No
118-K-1_P2_Deep_4	non-Rad	Vanadium	7440-62-2	ug/kg	62,899	85,100	No	140,000	No
118-K-1_P2_Deep_4	non-Rad	Zinc	7440-66-6	ug/kg	40,545	67,800	No	366,000	No
118-K-1_P2_Deep_5	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_5	non-Rad	Antimony	7440-36-0	ug/kg	237	130	Yes	385	No
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4	--	--	--	--
118-K-1_P2_Deep_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,850	20,000	No	27,700	No
118-K-1_P2_Deep_5	non-Rad	Barium	7440-39-3	ug/kg	72,194	132,000	No	480,000	No
118-K-1_P2_Deep_5	non-Rad	Beryllium	7440-41-7	ug/kg	327	1,510	No	10,000	No
118-K-1_P2_Deep_5	non-Rad	Boron	7440-42-8	ug/kg	794	3,890	No	5,860	No
118-K-1_P2_Deep_5	non-Rad	Cadmium	7440-43-9	ug/kg	106	563	No	2,980	No
118-K-1_P2_Deep_5	Rad	Carbon-14	14762-75-5	pCi/g	2.7	--	--	--	--
118-K-1_P2_Deep_5	Rad	Cesium-137	10045-97-3	pCi/g	0.092	1.1	No	1.6	No
118-K-1_P2_Deep_5	non-Rad	Chromium	7440-47-3	ug/kg	4,480	18,500	No	320,000	No
118-K-1_P2_Deep_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,990	15,700	No	110,000	No
118-K-1_P2_Deep_5	non-Rad	Copper	7440-50-8	ug/kg	17,100	22,000	No	61,000	No
118-K-1_P2_Deep_5	non-Rad	Iron	7439-89-6	ug/kg	3.40E+07	3.26E+07	Yes	6.81E+07	No
118-K-1_P2_Deep_5	non-Rad	Lead	7439-92-1	ug/kg	2,370	10,200	No	74,100	No
118-K-1_P2_Deep_5	non-Rad	Manganese	7439-96-5	ug/kg	413,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553	470	Yes	3,170	No
118-K-1_P2_Deep_5	non-Rad	Nickel	7440-02-0	ug/kg	7,096	19,100	No	200,000	No
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12	--	--	--	--
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,110	--	--	--	--
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	53,100	--	--	--	--
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842	85,100	Yes	140,000	No
118-K-1_P2_Deep_5	non-Rad	Zinc	7440-66-6	ug/kg	55,271	67,800	No	366,000	No
118-K-1_P2_Deep_6	non-Rad	Aluminum	7429-90-5	ug/kg	6.25E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,120	20,000	No	27,700	No
118-K-1_P2_Deep_6	non-Rad	Barium	7440-39-3	ug/kg	67,400	132,000	No	480,000	No
118-K-1_P2_Deep_6	non-Rad	Beryllium	7440-41-7	ug/kg	311	1,510	No	10,000	No
118-K-1_P2_Deep_6	non-Rad	Boron	7440-42-8	ug/kg	667	3,890	No	5,860	No
118-K-1_P2_Deep_6	non-Rad	Cadmium	7440-43-9	ug/kg	118	563	No	2,980	No
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7	--	--	--	--
118-K-1_P2_Deep_6	Rad	Cesium-137	10045-97-3	pCi/g	0.084	1.1	No	1.6	No
118-K-1_P2_Deep_6	non-Rad	Chromium	7440-47-3	ug/kg	5,380	18,500	No	320,000	No
118-K-1_P2_Deep_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,200	15,700	No	110,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Deep_6	non-Rad	Copper	7440-50-8	ug/kg	17,780	22,000	No	61,000	No
118-K-1_P2_Deep_6	non-Rad	Iron	7439-89-6	ug/kg	3.04E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_6	non-Rad	Lead	7439-92-1	ug/kg	3,266	10,200	No	74,100	No
118-K-1_P2_Deep_6	non-Rad	Manganese	7439-96-5	ug/kg	391,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_6	non-Rad	Molybdenum	7439-98-7	ug/kg	327	470	No	3,170	No
118-K-1_P2_Deep_6	non-Rad	Nickel	7440-02-0	ug/kg	7,810	19,100	No	200,000	No
118-K-1_P2_Deep_6	non-Rad	Vanadium	7440-62-2	ug/kg	82,600	85,100	No	140,000	No
118-K-1_P2_Deep_6	non-Rad	Zinc	7440-66-6	ug/kg	48,600	67,800	No	366,000	No
118-K-1_P2_Deep_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.24E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8	--	--	--	--
118-K-1_P2_Deep_7	non-Rad	Arsenic	7440-38-2	ug/kg	1,820	20,000	No	27,700	No
118-K-1_P2_Deep_7	non-Rad	Barium	7440-39-3	ug/kg	53,701	132,000	No	480,000	No
118-K-1_P2_Deep_7	non-Rad	Beryllium	7440-41-7	ug/kg	248	1,510	No	10,000	No
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	--	--	--	--
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10	1.1	Yes	1.6	Yes
118-K-1_P2_Deep_7	non-Rad	Chromium	7440-47-3	ug/kg	8,465	18,500	No	320,000	No
118-K-1_P2_Deep_7	non-Rad	Cobalt	7440-48-4	ug/kg	10,401	15,700	No	110,000	No
118-K-1_P2_Deep_7	non-Rad	Copper	7440-50-8	ug/kg	17,328	22,000	No	61,000	No
118-K-1_P2_Deep_7	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_7	non-Rad	Lead	7439-92-1	ug/kg	3,270	10,200	No	74,100	No
118-K-1_P2_Deep_7	non-Rad	Manganese	7439-96-5	ug/kg	360,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18	13	Yes	29	No
118-K-1_P2_Deep_7	non-Rad	Nickel	7440-02-0	ug/kg	8,156	19,100	No	200,000	No
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4	--	--	--	--
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3	0.18	Yes	0.37	Yes
118-K-1_P2_Deep_7	Rad	Tritium	10028-17-8	pCi/g	7.5	--	--	--	--
118-K-1_P2_Deep_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.46	1.1	No	1.5	No
118-K-1_P2_Deep_7	Rad	Uranium-238	7440-61-1	pCi/g	0.74	1.1	No	1.2	No
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461	85,100	Yes	140,000	No
118-K-1_P2_Deep_7	non-Rad	Zinc	7440-66-6	ug/kg	55,780	67,800	No	366,000	No
118-K-1_P2_Deep_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.81E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28	--	--	--	--
118-K-1_P2_Deep_8	non-Rad	Arsenic	7440-38-2	ug/kg	2,093	20,000	No	27,700	No
118-K-1_P2_Deep_8	non-Rad	Barium	7440-39-3	ug/kg	67,500	132,000	No	480,000	No
118-K-1_P2_Deep_8	non-Rad	Beryllium	7440-41-7	ug/kg	334	1,510	No	10,000	No
118-K-1_P2_Deep_8	non-Rad	Boron	7440-42-8	ug/kg	693	3,890	No	5,860	No
118-K-1_P2_Deep_8	non-Rad	Cadmium	7440-43-9	ug/kg	103	563	No	2,980	No
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84	--	--	--	--
118-K-1_P2_Deep_8	Rad	Cesium-137	10045-97-3	pCi/g	0.29	1.1	No	1.6	No
118-K-1_P2_Deep_8	non-Rad	Chromium	7440-47-3	ug/kg	4,802	18,500	No	320,000	No
118-K-1_P2_Deep_8	non-Rad	Cobalt	7440-48-4	ug/kg	11,230	15,700	No	110,000	No
118-K-1_P2_Deep_8	non-Rad	Copper	7440-50-8	ug/kg	18,500	22,000	No	61,000	No
118-K-1_P2_Deep_8	non-Rad	Iron	7439-89-6	ug/kg	3.60E+07	3.26E+07	Yes	6.81E+07	No
118-K-1_P2_Deep_8	non-Rad	Lead	7439-92-1	ug/kg	3,744	10,200	No	74,100	No
118-K-1_P2_Deep_8	non-Rad	Manganese	7439-96-5	ug/kg	515,801	512,000	Yes	1.11E+06	No
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495	470	Yes	3,170	No
118-K-1_P2_Deep_8	non-Rad	Nickel	7440-02-0	ug/kg	8,390	19,100	No	200,000	No
118-K-1_P2_Deep_8	non-Rad	Selenium	7782-49-2	ug/kg	268	780	No	840	No
118-K-1_P2_Deep_8	Rad	Tritium	10028-17-8	pCi/g	5.8	--	--	--	--
118-K-1_P2_Deep_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.73	1.1	No	1.5	No
118-K-1_P2_Deep_8	Rad	Uranium-238	7440-61-1	pCi/g	0.75	1.1	No	1.2	No
118-K-1_P2_Deep_8	non-Rad	Vanadium	7440-62-2	ug/kg	83,544	85,100	No	140,000	No
118-K-1_P2_Deep_8	non-Rad	Zinc	7440-66-6	ug/kg	52,500	67,800	No	366,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Aluminum	7429-90-5	ug/kg	4.30E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99	--	--	--	--
118-K-1_P2_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	3,040	130	Yes	385	Yes
118-K-1_P2_Deep_Focused_1	non-Rad	Arsenic	7440-38-2	ug/kg	1,910	20,000	No	27,700	No
118-K-1_P2_Deep_Focused_1	non-Rad	Barium	7440-39-3	ug/kg	41,900	132,000	No	480,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Beryllium	7440-41-7	ug/kg	183	1,510	No	10,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Boron	7440-42-8	ug/kg	1,260	3,890	No	5,860	No
118-K-1_P2_Deep_Focused_1	non-Rad	Cadmium	7440-43-9	ug/kg	79	563	No	2,980	No
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3	--	--	--	--
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11	1.1	Yes	1.6	Yes
118-K-1_P2_Deep_Focused_1	non-Rad	Chromium	7440-47-3	ug/kg	6,030	18,500	No	320,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Deep_Focused_1	non-Rad	Cobalt	7440-48-4	ug/kg	5,300	15,700	No	110,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Copper	7440-50-8	ug/kg	13,600	22,000	No	61,000	No
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3	--	--	--	--
118-K-1_P2_Deep_Focused_1	non-Rad	Iron	7439-89-6	ug/kg	1.77E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_Focused_1	non-Rad	Lead	7439-92-1	ug/kg	8,410	10,200	No	74,100	No
118-K-1_P2_Deep_Focused_1	non-Rad	Manganese	7439-96-5	ug/kg	232,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203	13	Yes	29	Yes
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517	470	Yes	3,170	No
118-K-1_P2_Deep_Focused_1	non-Rad	Nickel	7440-02-0	ug/kg	6,550	19,100	No	200,000	No
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57	--	--	--	--
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053	0.0038	Yes	0.019	Yes
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29	0.18	Yes	0.37	Yes
118-K-1_P2_Deep_Focused_1	Rad	Uranium-233/234	U-233/234	pCi/g	0.54	1.1	No	1.5	No
118-K-1_P2_Deep_Focused_1	Rad	Uranium-238	7440-61-1	pCi/g	0.57	1.1	No	1.2	No
118-K-1_P2_Deep_Focused_1	non-Rad	Vanadium	7440-62-2	ug/kg	44,900	85,100	No	140,000	No
118-K-1_P2_Deep_Focused_1	non-Rad	Zinc	7440-66-6	ug/kg	37,200	67,800	No	366,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Aluminum	7429-90-5	ug/kg	6.61E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2	--	--	--	--
118-K-1_P2_Deep_Focused_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,130	20,000	No	27,700	No
118-K-1_P2_Deep_Focused_2	non-Rad	Barium	7440-39-3	ug/kg	56,100	132,000	No	480,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Beryllium	7440-41-7	ug/kg	228	1,510	No	10,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Boron	7440-42-8	ug/kg	791	3,890	No	5,860	No
118-K-1_P2_Deep_Focused_2	non-Rad	Cadmium	7440-43-9	ug/kg	69	563	No	2,980	No
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14	--	--	--	--
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4	1.1	Yes	1.6	Yes
118-K-1_P2_Deep_Focused_2	non-Rad	Chromium	7440-47-3	ug/kg	13,000	18,500	No	320,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,420	15,700	No	110,000	No
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40	0.0084	Yes	0.039	Yes
118-K-1_P2_Deep_Focused_2	non-Rad	Copper	7440-50-8	ug/kg	13,000	22,000	No	61,000	No
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37	--	--	--	--
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9	0.033	Yes	0.079	Yes
118-K-1_P2_Deep_Focused_2	non-Rad	Iron	7439-89-6	ug/kg	2.08E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_Focused_2	non-Rad	Lead	7439-92-1	ug/kg	2,870	10,200	No	74,100	No
118-K-1_P2_Deep_Focused_2	non-Rad	Manganese	7439-96-5	ug/kg	256,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	258	470	No	3,170	No
118-K-1_P2_Deep_Focused_2	non-Rad	Nickel	7440-02-0	ug/kg	11,700	19,100	No	200,000	No
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14	--	--	--	--
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32	0.0038	Yes	0.019	Yes
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15	0.18	Yes	0.37	Yes
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1	--	--	--	--
118-K-1_P2_Deep_Focused_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.65	1.1	No	1.5	No
118-K-1_P2_Deep_Focused_2	Rad	Uranium-235	15117-96-1	pCi/g	0.041	0.11	No	0.39	No
118-K-1_P2_Deep_Focused_2	Rad	Uranium-238	7440-61-1	pCi/g	0.61	1.1	No	1.2	No
118-K-1_P2_Deep_Focused_2	non-Rad	Vanadium	7440-62-2	ug/kg	67,300	85,100	No	140,000	No
118-K-1_P2_Deep_Focused_2	non-Rad	Zinc	7440-66-6	ug/kg	42,300	67,800	No	366,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Aluminum	7429-90-5	ug/kg	6.45E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9	--	--	--	--
118-K-1_P2_Deep_Focused_7	non-Rad	Arsenic	7440-38-2	ug/kg	2,080	20,000	No	27,700	No
118-K-1_P2_Deep_Focused_7	non-Rad	Barium	7440-39-3	ug/kg	86,500	132,000	No	480,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Beryllium	7440-41-7	ug/kg	330	1,510	No	10,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Boron	7440-42-8	ug/kg	523	3,890	No	5,860	No
118-K-1_P2_Deep_Focused_7	non-Rad	Cadmium	7440-43-9	ug/kg	78	563	No	2,980	No
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36	1.1	Yes	1.6	Yes
118-K-1_P2_Deep_Focused_7	non-Rad	Chromium	7440-47-3	ug/kg	6,900	18,500	No	320,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Cobalt	7440-48-4	ug/kg	6,460	15,700	No	110,000	No
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20	0.0084	Yes	0.039	Yes
118-K-1_P2_Deep_Focused_7	non-Rad	Copper	7440-50-8	ug/kg	17,600	22,000	No	61,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Iron	7439-89-6	ug/kg	2.98E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Deep_Focused_7	non-Rad	Lead	7439-92-1	ug/kg	3,290	10,200	No	74,100	No
118-K-1_P2_Deep_Focused_7	non-Rad	Manganese	7439-96-5	ug/kg	345,000	512,000	No	1.11E+06	No
118-K-1_P2_Deep_Focused_7	non-Rad	Molybdenum	7439-98-7	ug/kg	394	470	No	3,170	No
118-K-1_P2_Deep_Focused_7	non-Rad	Nickel	7440-02-0	ug/kg	9,130	19,100	No	200,000	No
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38	0.0038	Yes	0.019	Yes
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2	0.025	Yes	0.033	Yes
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12	0.18	Yes	0.37	Yes
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30	--	--	--	--
118-K-1_P2_Deep_Focused_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.42	1.1	No	1.5	No
118-K-1_P2_Deep_Focused_7	Rad	Uranium-238	7440-61-1	pCi/g	0.62	1.1	No	1.2	No
118-K-1_P2_Deep_Focused_7	non-Rad	Vanadium	7440-62-2	ug/kg	70,500	85,100	No	140,000	No
118-K-1_P2_Deep_Focused_7	non-Rad	Zinc	7440-66-6	ug/kg	47,300	67,800	No	366,000	No
118-K-1_P2_Shallow_1	non-Rad	Aluminum	7429-90-5	ug/kg	5.76E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_1	non-Rad	Arsenic	7440-38-2	ug/kg	2,420	20,000	No	27,700	No
118-K-1_P2_Shallow_1	non-Rad	Barium	7440-39-3	ug/kg	55,474	132,000	No	480,000	No
118-K-1_P2_Shallow_1	non-Rad	Beryllium	7440-41-7	ug/kg	251	1,510	No	10,000	No
118-K-1_P2_Shallow_1	non-Rad	Boron	7440-42-8	ug/kg	1,458	3,890	No	5,860	No
118-K-1_P2_Shallow_1	non-Rad	Cadmium	7440-43-9	ug/kg	77	563	No	2,980	No
118-K-1_P2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	4.5	--	--	--	--
118-K-1_P2_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	0.073	1.1	No	1.6	No
118-K-1_P2_Shallow_1	non-Rad	Chromium	7440-47-3	ug/kg	6,290	18,500	No	320,000	No
118-K-1_P2_Shallow_1	non-Rad	Cobalt	7440-48-4	ug/kg	7,406	15,700	No	110,000	No
118-K-1_P2_Shallow_1	non-Rad	Copper	7440-50-8	ug/kg	13,800	22,000	No	61,000	No
118-K-1_P2_Shallow_1	non-Rad	Iron	7439-89-6	ug/kg	2.07E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_1	non-Rad	Lead	7439-92-1	ug/kg	3,360	10,200	No	74,100	No
118-K-1_P2_Shallow_1	non-Rad	Manganese	7439-96-5	ug/kg	295,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	423	470	No	3,170	No
118-K-1_P2_Shallow_1	non-Rad	Nickel	7440-02-0	ug/kg	7,140	19,100	No	200,000	No
118-K-1_P2_Shallow_1	Rad	Tritium	10028-17-8	pCi/g	6.5	--	--	--	--
118-K-1_P2_Shallow_1	non-Rad	Vanadium	7440-62-2	ug/kg	55,364	85,100	No	140,000	No
118-K-1_P2_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	44,300	67,800	No	366,000	No
118-K-1_P2_Shallow_10	non-Rad	Aluminum	7429-90-5	ug/kg	9.80E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_10	non-Rad	Arsenic	7440-38-2	ug/kg	3,370	20,000	No	27,700	No
118-K-1_P2_Shallow_10	non-Rad	Barium	7440-39-3	ug/kg	76,559	132,000	No	480,000	No
118-K-1_P2_Shallow_10	non-Rad	Beryllium	7440-41-7	ug/kg	401	1,510	No	10,000	No
118-K-1_P2_Shallow_10	non-Rad	Boron	7440-42-8	ug/kg	1,659	3,890	No	5,860	No
118-K-1_P2_Shallow_10	non-Rad	Cadmium	7440-43-9	ug/kg	121	563	No	2,980	No
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88	--	--	--	--
118-K-1_P2_Shallow_10	Rad	Cesium-137	10045-97-3	pCi/g	0.11	1.1	No	1.6	No
118-K-1_P2_Shallow_10	non-Rad	Chromium	7440-47-3	ug/kg	11,600	18,500	No	320,000	No
118-K-1_P2_Shallow_10	non-Rad	Cobalt	7440-48-4	ug/kg	9,600	15,700	No	110,000	No
118-K-1_P2_Shallow_10	non-Rad	Copper	7440-50-8	ug/kg	22,649	22,000	Yes	61,000	No
118-K-1_P2_Shallow_10	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_10	non-Rad	Lead	7439-92-1	ug/kg	4,510	10,200	No	74,100	No
118-K-1_P2_Shallow_10	non-Rad	Manganese	7439-96-5	ug/kg	452,510	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590	470	Yes	3,170	No
118-K-1_P2_Shallow_10	non-Rad	Nickel	7440-02-0	ug/kg	10,800	19,100	No	200,000	No
118-K-1_P2_Shallow_10	non-Rad	Nitrate	14797-55-8	ug/kg	44,542	52,000	No	906,000	No
118-K-1_P2_Shallow_10	Rad	Uranium-233/234	U-233/234	pCi/g	0.72	1.1	No	1.5	No
118-K-1_P2_Shallow_10	Rad	Uranium-238	7440-61-1	pCi/g	0.73	1.1	No	1.2	No
118-K-1_P2_Shallow_10	non-Rad	Vanadium	7440-62-2	ug/kg	83,071	85,100	No	140,000	No
118-K-1_P2_Shallow_10	non-Rad	Zinc	7440-66-6	ug/kg	56,346	67,800	No	366,000	No
118-K-1_P2_Shallow_11A	non-Rad	Aluminum	7429-90-5	ug/kg	7.97E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11A	non-Rad	Arsenic	7440-38-2	ug/kg	2,973	20,000	No	27,700	No
118-K-1_P2_Shallow_11A	non-Rad	Barium	7440-39-3	ug/kg	75,402	132,000	No	480,000	No
118-K-1_P2_Shallow_11A	non-Rad	Beryllium	7440-41-7	ug/kg	311	1,510	No	10,000	No
118-K-1_P2_Shallow_11A	non-Rad	Boron	7440-42-8	ug/kg	1,847	3,890	No	5,860	No
118-K-1_P2_Shallow_11A	non-Rad	Cadmium	7440-43-9	ug/kg	124	563	No	2,980	No
118-K-1_P2_Shallow_11A	Rad	Cesium-137	10045-97-3	pCi/g	0.14	1.1	No	1.6	No
118-K-1_P2_Shallow_11A	non-Rad	Chromium	7440-47-3	ug/kg	9,103	18,500	No	320,000	No
118-K-1_P2_Shallow_11A	non-Rad	Cobalt	7440-48-4	ug/kg	8,040	15,700	No	110,000	No
118-K-1_P2_Shallow_11A	non-Rad	Copper	7440-50-8	ug/kg	18,000	22,000	No	61,000	No
118-K-1_P2_Shallow_11A	non-Rad	Iron	7439-89-6	ug/kg	2.64E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11A	non-Rad	Lead	7439-92-1	ug/kg	5,321	10,200	No	74,100	No
118-K-1_P2_Shallow_11A	non-Rad	Manganese	7439-96-5	ug/kg	351,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650	470	Yes	3,170	No
118-K-1_P2_Shallow_11A	non-Rad	Nickel	7440-02-0	ug/kg	10,657	19,100	No	200,000	No
118-K-1_P2_Shallow_11A	non-Rad	Nitrate	14797-55-8	ug/kg	121,000	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11A	non-Rad	Vanadium	7440-62-2	ug/kg	71,900	85,100	No	140,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_11A	non-Rad	Zinc	7440-66-6	ug/kg	56,000	67,800	No	366,000	No
118-K-1_P2_Shallow_11B	non-Rad	Aluminum	7429-90-5	ug/kg	1.06E+07	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11B	non-Rad	Arsenic	7440-38-2	ug/kg	3,228	20,000	No	27,700	No
118-K-1_P2_Shallow_11B	non-Rad	Barium	7440-39-3	ug/kg	87,080	132,000	No	480,000	No
118-K-1_P2_Shallow_11B	non-Rad	Beryllium	7440-41-7	ug/kg	383	1,510	No	10,000	No
118-K-1_P2_Shallow_11B	non-Rad	Boron	7440-42-8	ug/kg	2,290	3,890	No	5,860	No
118-K-1_P2_Shallow_11B	non-Rad	Cadmium	7440-43-9	ug/kg	136	563	No	2,980	No
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88	--	--	--	--
118-K-1_P2_Shallow_11B	Rad	Cesium-137	10045-97-3	pCi/g	0.099	1.1	No	1.6	No
118-K-1_P2_Shallow_11B	non-Rad	Chromium	7440-47-3	ug/kg	12,715	18,500	No	320,000	No
118-K-1_P2_Shallow_11B	non-Rad	Cobalt	7440-48-4	ug/kg	7,860	15,700	No	110,000	No
118-K-1_P2_Shallow_11B	non-Rad	Copper	7440-50-8	ug/kg	17,700	22,000	No	61,000	No
118-K-1_P2_Shallow_11B	non-Rad	Iron	7439-89-6	ug/kg	2.54E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11B	non-Rad	Lead	7439-92-1	ug/kg	5,250	10,200	No	74,100	No
118-K-1_P2_Shallow_11B	non-Rad	Manganese	7439-96-5	ug/kg	404,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678	470	Yes	3,170	No
118-K-1_P2_Shallow_11B	non-Rad	Nickel	7440-02-0	ug/kg	12,000	19,100	No	200,000	No
118-K-1_P2_Shallow_11B	non-Rad	Nitrate	14797-55-8	ug/kg	390,793	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11B	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--	--	--	--
118-K-1_P2_Shallow_11B	non-Rad	Vanadium	7440-62-2	ug/kg	69,400	85,100	No	140,000	No
118-K-1_P2_Shallow_11B	non-Rad	Zinc	7440-66-6	ug/kg	57,921	67,800	No	366,000	No
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07	1.18E+07	Yes	2.88E+07	No
118-K-1_P2_Shallow_11C	non-Rad	Arsenic	7440-38-2	ug/kg	3,653	20,000	No	27,700	No
118-K-1_P2_Shallow_11C	non-Rad	Barium	7440-39-3	ug/kg	96,400	132,000	No	480,000	No
118-K-1_P2_Shallow_11C	non-Rad	Beryllium	7440-41-7	ug/kg	433	1,510	No	10,000	No
118-K-1_P2_Shallow_11C	non-Rad	Boron	7440-42-8	ug/kg	2,414	3,890	No	5,860	No
118-K-1_P2_Shallow_11C	non-Rad	Cadmium	7440-43-9	ug/kg	146	563	No	2,980	No
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87	--	--	--	--
118-K-1_P2_Shallow_11C	Rad	Cesium-137	10045-97-3	pCi/g	0.095	1.1	No	1.6	No
118-K-1_P2_Shallow_11C	non-Rad	Chromium	7440-47-3	ug/kg	14,900	18,500	No	320,000	No
118-K-1_P2_Shallow_11C	non-Rad	Cobalt	7440-48-4	ug/kg	7,710	15,700	No	110,000	No
118-K-1_P2_Shallow_11C	non-Rad	Copper	7440-50-8	ug/kg	19,453	22,000	No	61,000	No
118-K-1_P2_Shallow_11C	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11C	non-Rad	Lead	7439-92-1	ug/kg	5,085	10,200	No	74,100	No
118-K-1_P2_Shallow_11C	non-Rad	Manganese	7439-96-5	ug/kg	441,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39	13	Yes	29	Yes
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517	470	Yes	3,170	No
118-K-1_P2_Shallow_11C	non-Rad	Nickel	7440-02-0	ug/kg	14,400	19,100	No	200,000	No
118-K-1_P2_Shallow_11C	non-Rad	Nitrate	14797-55-8	ug/kg	169,367	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11C	non-Rad	Vanadium	7440-62-2	ug/kg	65,680	85,100	No	140,000	No
118-K-1_P2_Shallow_11C	non-Rad	Zinc	7440-66-6	ug/kg	49,600	67,800	No	366,000	No
118-K-1_P2_Shallow_11D	non-Rad	Aluminum	7429-90-5	ug/kg	1.17E+07	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11D	non-Rad	Arsenic	7440-38-2	ug/kg	3,120	20,000	No	27,700	No
118-K-1_P2_Shallow_11D	non-Rad	Barium	7440-39-3	ug/kg	89,100	132,000	No	480,000	No
118-K-1_P2_Shallow_11D	non-Rad	Beryllium	7440-41-7	ug/kg	395	1,510	No	10,000	No
118-K-1_P2_Shallow_11D	non-Rad	Boron	7440-42-8	ug/kg	2,320	3,890	No	5,860	No
118-K-1_P2_Shallow_11D	non-Rad	Cadmium	7440-43-9	ug/kg	162	563	No	2,980	No
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2	--	--	--	--
118-K-1_P2_Shallow_11D	Rad	Cesium-137	10045-97-3	pCi/g	0.12	1.1	No	1.6	No
118-K-1_P2_Shallow_11D	non-Rad	Chromium	7440-47-3	ug/kg	12,600	18,500	No	320,000	No
118-K-1_P2_Shallow_11D	non-Rad	Cobalt	7440-48-4	ug/kg	7,275	15,700	No	110,000	No
118-K-1_P2_Shallow_11D	non-Rad	Copper	7440-50-8	ug/kg	14,940	22,000	No	61,000	No
118-K-1_P2_Shallow_11D	non-Rad	Iron	7439-89-6	ug/kg	2.39E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11D	non-Rad	Lead	7439-92-1	ug/kg	5,756	10,200	No	74,100	No
118-K-1_P2_Shallow_11D	non-Rad	Manganese	7439-96-5	ug/kg	409,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563	470	Yes	3,170	No
118-K-1_P2_Shallow_11D	non-Rad	Nickel	7440-02-0	ug/kg	11,600	19,100	No	200,000	No
118-K-1_P2_Shallow_11D	non-Rad	Nitrate	14797-55-8	ug/kg	148,000	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11D	non-Rad	Vanadium	7440-62-2	ug/kg	62,900	85,100	No	140,000	No
118-K-1_P2_Shallow_11D	non-Rad	Zinc	7440-66-6	ug/kg	49,719	67,800	No	366,000	No
118-K-1_P2_Shallow_11E	non-Rad	Aluminum	7429-90-5	ug/kg	1.12E+07	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11E	non-Rad	Arsenic	7440-38-2	ug/kg	3,772	20,000	No	27,700	No
118-K-1_P2_Shallow_11E	non-Rad	Barium	7440-39-3	ug/kg	94,900	132,000	No	480,000	No
118-K-1_P2_Shallow_11E	non-Rad	Beryllium	7440-41-7	ug/kg	379	1,510	No	10,000	No
118-K-1_P2_Shallow_11E	non-Rad	Boron	7440-42-8	ug/kg	2,315	3,890	No	5,860	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_11E	non-Rad	Cadmium	7440-43-9	ug/kg	146	563	No	2,980	No
118-K-1_P2_Shallow_11E	Rad	Carbon-14	14762-75-5	pCi/g	2.1	--	--	--	--
118-K-1_P2_Shallow_11E	Rad	Cesium-137	10045-97-3	pCi/g	0.14	1.1	No	1.6	No
118-K-1_P2_Shallow_11E	non-Rad	Chromium	7440-47-3	ug/kg	12,619	18,500	No	320,000	No
118-K-1_P2_Shallow_11E	non-Rad	Cobalt	7440-48-4	ug/kg	7,830	15,700	No	110,000	No
118-K-1_P2_Shallow_11E	non-Rad	Copper	7440-50-8	ug/kg	22,325	22,000	Yes	61,000	No
118-K-1_P2_Shallow_11E	non-Rad	Iron	7439-89-6	ug/kg	2.68E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11E	non-Rad	Lead	7439-92-1	ug/kg	6,070	10,200	No	74,100	No
118-K-1_P2_Shallow_11E	non-Rad	Manganese	7439-96-5	ug/kg	431,889	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11E	non-Rad	Mercury	7439-97-6	ug/kg	9.3	13	No	29	No
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563	470	Yes	3,170	No
118-K-1_P2_Shallow_11E	non-Rad	Nickel	7440-02-0	ug/kg	11,100	19,100	No	200,000	No
118-K-1_P2_Shallow_11E	non-Rad	Nitrate	14797-55-8	ug/kg	56,000	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11E	non-Rad	Vanadium	7440-62-2	ug/kg	68,495	85,100	No	140,000	No
118-K-1_P2_Shallow_11E	non-Rad	Zinc	7440-66-6	ug/kg	54,300	67,800	No	366,000	No
118-K-1_P2_Shallow_11F	non-Rad	Aluminum	7429-90-5	ug/kg	9.42E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11F	non-Rad	Arsenic	7440-38-2	ug/kg	3,379	20,000	No	27,700	No
118-K-1_P2_Shallow_11F	non-Rad	Barium	7440-39-3	ug/kg	83,400	132,000	No	480,000	No
118-K-1_P2_Shallow_11F	non-Rad	Beryllium	7440-41-7	ug/kg	316	1,510	No	10,000	No
118-K-1_P2_Shallow_11F	non-Rad	Boron	7440-42-8	ug/kg	2,210	3,890	No	5,860	No
118-K-1_P2_Shallow_11F	non-Rad	Cadmium	7440-43-9	ug/kg	149	563	No	2,980	No
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3	--	--	--	--
118-K-1_P2_Shallow_11F	Rad	Cesium-137	10045-97-3	pCi/g	0.22	1.1	No	1.6	No
118-K-1_P2_Shallow_11F	non-Rad	Chromium	7440-47-3	ug/kg	11,200	18,500	No	320,000	No
118-K-1_P2_Shallow_11F	non-Rad	Cobalt	7440-48-4	ug/kg	8,056	15,700	No	110,000	No
118-K-1_P2_Shallow_11F	non-Rad	Copper	7440-50-8	ug/kg	16,300	22,000	No	61,000	No
118-K-1_P2_Shallow_11F	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11F	non-Rad	Lead	7439-92-1	ug/kg	5,510	10,200	No	74,100	No
118-K-1_P2_Shallow_11F	non-Rad	Manganese	7439-96-5	ug/kg	374,448	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22	13	Yes	29	No
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884	470	Yes	3,170	No
118-K-1_P2_Shallow_11F	non-Rad	Nickel	7440-02-0	ug/kg	11,300	19,100	No	200,000	No
118-K-1_P2_Shallow_11F	non-Rad	Nitrate	14797-55-8	ug/kg	65,100	52,000	Yes	906,000	No
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7	--	--	--	--
118-K-1_P2_Shallow_11F	non-Rad	Vanadium	7440-62-2	ug/kg	77,500	85,100	No	140,000	No
118-K-1_P2_Shallow_11F	non-Rad	Zinc	7440-66-6	ug/kg	51,655	67,800	No	366,000	No
118-K-1_P2_Shallow_11G	non-Rad	Aluminum	7429-90-5	ug/kg	7.17E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11G	non-Rad	Arsenic	7440-38-2	ug/kg	2,690	20,000	No	27,700	No
118-K-1_P2_Shallow_11G	non-Rad	Barium	7440-39-3	ug/kg	60,300	132,000	No	480,000	No
118-K-1_P2_Shallow_11G	non-Rad	Beryllium	7440-41-7	ug/kg	290	1,510	No	10,000	No
118-K-1_P2_Shallow_11G	non-Rad	Boron	7440-42-8	ug/kg	1,340	3,890	No	5,860	No
118-K-1_P2_Shallow_11G	non-Rad	Cadmium	7440-43-9	ug/kg	109	563	No	2,980	No
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9	--	--	--	--
118-K-1_P2_Shallow_11G	Rad	Cesium-137	10045-97-3	pCi/g	0.16	1.1	No	1.6	No
118-K-1_P2_Shallow_11G	non-Rad	Chromium	7440-47-3	ug/kg	8,117	18,500	No	320,000	No
118-K-1_P2_Shallow_11G	non-Rad	Cobalt	7440-48-4	ug/kg	8,360	15,700	No	110,000	No
118-K-1_P2_Shallow_11G	non-Rad	Copper	7440-50-8	ug/kg	16,781	22,000	No	61,000	No
118-K-1_P2_Shallow_11G	non-Rad	Iron	7439-89-6	ug/kg	2.83E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11G	non-Rad	Lead	7439-92-1	ug/kg	4,750	10,200	No	74,100	No
118-K-1_P2_Shallow_11G	non-Rad	Manganese	7439-96-5	ug/kg	377,844	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582	470	Yes	3,170	No
118-K-1_P2_Shallow_11G	non-Rad	Nickel	7440-02-0	ug/kg	9,760	19,100	No	200,000	No
118-K-1_P2_Shallow_11G	non-Rad	Nitrate	14797-55-8	ug/kg	42,833	52,000	No	906,000	No
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361	85,100	Yes	140,000	No
118-K-1_P2_Shallow_11G	non-Rad	Zinc	7440-66-6	ug/kg	55,130	67,800	No	366,000	No
118-K-1_P2_Shallow_11H	non-Rad	Aluminum	7429-90-5	ug/kg	6.51E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_11H	non-Rad	Arsenic	7440-38-2	ug/kg	2,774	20,000	No	27,700	No
118-K-1_P2_Shallow_11H	non-Rad	Barium	7440-39-3	ug/kg	55,500	132,000	No	480,000	No
118-K-1_P2_Shallow_11H	non-Rad	Beryllium	7440-41-7	ug/kg	256	1,510	No	10,000	No
118-K-1_P2_Shallow_11H	non-Rad	Boron	7440-42-8	ug/kg	1,258	3,890	No	5,860	No
118-K-1_P2_Shallow_11H	non-Rad	Cadmium	7440-43-9	ug/kg	103	563	No	2,980	No
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6	--	--	--	--
118-K-1_P2_Shallow_11H	Rad	Cesium-137	10045-97-3	pCi/g	0.27	1.1	No	1.6	No
118-K-1_P2_Shallow_11H	non-Rad	Chromium	7440-47-3	ug/kg	6,938	18,500	No	320,000	No
118-K-1_P2_Shallow_11H	non-Rad	Cobalt	7440-48-4	ug/kg	7,810	15,700	No	110,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_11H	non-Rad	Copper	7440-50-8	ug/kg	16,500	22,000	No	61,000	No
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29	--	--	--	--
118-K-1_P2_Shallow_11H	non-Rad	Iron	7439-89-6	ug/kg	2.71E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_11H	non-Rad	Lead	7439-92-1	ug/kg	7,929	10,200	No	74,100	No
118-K-1_P2_Shallow_11H	non-Rad	Manganese	7439-96-5	ug/kg	344,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488	470	Yes	3,170	No
118-K-1_P2_Shallow_11H	non-Rad	Nickel	7440-02-0	ug/kg	9,390	19,100	No	200,000	No
118-K-1_P2_Shallow_11H	non-Rad	Nitrate	14797-55-8	ug/kg	21,000	52,000	No	906,000	No
118-K-1_P2_Shallow_11H	non-Rad	Vanadium	7440-62-2	ug/kg	82,400	85,100	No	140,000	No
118-K-1_P2_Shallow_11H	non-Rad	Zinc	7440-66-6	ug/kg	55,900	67,800	No	366,000	No
118-K-1_P2_Shallow_2	non-Rad	Aluminum	7429-90-5	ug/kg	7.08E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_2	non-Rad	Arsenic	7440-38-2	ug/kg	2,870	20,000	No	27,700	No
118-K-1_P2_Shallow_2	non-Rad	Barium	7440-39-3	ug/kg	56,878	132,000	No	480,000	No
118-K-1_P2_Shallow_2	non-Rad	Beryllium	7440-41-7	ug/kg	285	1,510	No	10,000	No
118-K-1_P2_Shallow_2	non-Rad	Boron	7440-42-8	ug/kg	1,390	3,890	No	5,860	No
118-K-1_P2_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	84	563	No	2,980	No
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0	--	--	--	--
118-K-1_P2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	0.097	1.1	No	1.6	No
118-K-1_P2_Shallow_2	non-Rad	Chromium	7440-47-3	ug/kg	8,523	18,500	No	320,000	No
118-K-1_P2_Shallow_2	non-Rad	Cobalt	7440-48-4	ug/kg	6,386	15,700	No	110,000	No
118-K-1_P2_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	13,685	22,000	No	61,000	No
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23	--	--	--	--
118-K-1_P2_Shallow_2	non-Rad	Iron	7439-89-6	ug/kg	1.99E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	3,338	10,200	No	74,100	No
118-K-1_P2_Shallow_2	non-Rad	Manganese	7439-96-5	ug/kg	309,188	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	375	470	No	3,170	No
118-K-1_P2_Shallow_2	non-Rad	Nickel	7440-02-0	ug/kg	8,841	19,100	No	200,000	No
118-K-1_P2_Shallow_2	Rad	Uranium-233/234	U-233/234	pCi/g	0.89	1.1	No	1.5	No
118-K-1_P2_Shallow_2	Rad	Uranium-238	7440-61-1	pCi/g	0.66	1.1	No	1.2	No
118-K-1_P2_Shallow_2	non-Rad	Vanadium	7440-62-2	ug/kg	54,600	85,100	No	140,000	No
118-K-1_P2_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	40,000	67,800	No	366,000	No
118-K-1_P2_Shallow_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.96E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_3	non-Rad	Arsenic	7440-38-2	ug/kg	2,875	20,000	No	27,700	No
118-K-1_P2_Shallow_3	non-Rad	Barium	7440-39-3	ug/kg	62,560	132,000	No	480,000	No
118-K-1_P2_Shallow_3	non-Rad	Beryllium	7440-41-7	ug/kg	305	1,510	No	10,000	No
118-K-1_P2_Shallow_3	non-Rad	Boron	7440-42-8	ug/kg	1,659	3,890	No	5,860	No
118-K-1_P2_Shallow_3	non-Rad	Cadmium	7440-43-9	ug/kg	85	563	No	2,980	No
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2	--	--	--	--
118-K-1_P2_Shallow_3	non-Rad	Chromium	7440-47-3	ug/kg	9,180	18,500	No	320,000	No
118-K-1_P2_Shallow_3	non-Rad	Cobalt	7440-48-4	ug/kg	6,609	15,700	No	110,000	No
118-K-1_P2_Shallow_3	non-Rad	Copper	7440-50-8	ug/kg	14,900	22,000	No	61,000	No
118-K-1_P2_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_3	non-Rad	Lead	7439-92-1	ug/kg	4,339	10,200	No	74,100	No
118-K-1_P2_Shallow_3	non-Rad	Manganese	7439-96-5	ug/kg	316,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	444	470	No	3,170	No
118-K-1_P2_Shallow_3	non-Rad	Nickel	7440-02-0	ug/kg	9,290	19,100	No	200,000	No
118-K-1_P2_Shallow_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.014	0.025	No	0.033	No
118-K-1_P2_Shallow_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.66	1.1	No	1.5	No
118-K-1_P2_Shallow_3	Rad	Uranium-238	7440-61-1	pCi/g	0.76	1.1	No	1.2	No
118-K-1_P2_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	57,548	85,100	No	140,000	No
118-K-1_P2_Shallow_3	non-Rad	Zinc	7440-66-6	ug/kg	43,400	67,800	No	366,000	No
118-K-1_P2_Shallow_4	non-Rad	Aluminum	7429-90-5	ug/kg	6.79E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_4	non-Rad	Arsenic	7440-38-2	ug/kg	3,167	20,000	No	27,700	No
118-K-1_P2_Shallow_4	non-Rad	Barium	7440-39-3	ug/kg	53,000	132,000	No	480,000	No
118-K-1_P2_Shallow_4	non-Rad	Beryllium	7440-41-7	ug/kg	277	1,510	No	10,000	No
118-K-1_P2_Shallow_4	non-Rad	Boron	7440-42-8	ug/kg	1,020	3,890	No	5,860	No
118-K-1_P2_Shallow_4	non-Rad	Cadmium	7440-43-9	ug/kg	52	563	No	2,980	No
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86	--	--	--	--
118-K-1_P2_Shallow_4	non-Rad	Chromium	7440-47-3	ug/kg	6,920	18,500	No	320,000	No
118-K-1_P2_Shallow_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,321	15,700	No	110,000	No
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27	0.0084	Yes	0.039	Yes
118-K-1_P2_Shallow_4	non-Rad	Copper	7440-50-8	ug/kg	14,100	22,000	No	61,000	No
118-K-1_P2_Shallow_4	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_4	non-Rad	Lead	7439-92-1	ug/kg	4,059	10,200	No	74,100	No
118-K-1_P2_Shallow_4	non-Rad	Manganese	7439-96-5	ug/kg	291,000	512,000	No	1.11E+06	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	316	470	No	3,170	No
118-K-1_P2_Shallow_4	non-Rad	Nickel	7440-02-0	ug/kg	7,600	19,100	No	200,000	No
118-K-1_P2_Shallow_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.64	1.1	No	1.5	No
118-K-1_P2_Shallow_4	Rad	Uranium-235	15117-96-1	pCi/g	0.061	0.11	No	0.39	No
118-K-1_P2_Shallow_4	Rad	Uranium-238	7440-61-1	pCi/g	0.60	1.1	No	1.2	No
118-K-1_P2_Shallow_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,252	85,100	No	140,000	No
118-K-1_P2_Shallow_4	non-Rad	Zinc	7440-66-6	ug/kg	41,900	67,800	No	366,000	No
118-K-1_P2_Shallow_5	non-Rad	Aluminum	7429-90-5	ug/kg	8.45E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_5	non-Rad	Arsenic	7440-38-2	ug/kg	2,930	20,000	No	27,700	No
118-K-1_P2_Shallow_5	non-Rad	Barium	7440-39-3	ug/kg	73,049	132,000	No	480,000	No
118-K-1_P2_Shallow_5	non-Rad	Beryllium	7440-41-7	ug/kg	346	1,510	No	10,000	No
118-K-1_P2_Shallow_5	non-Rad	Boron	7440-42-8	ug/kg	1,610	3,890	No	5,860	No
118-K-1_P2_Shallow_5	non-Rad	Cadmium	7440-43-9	ug/kg	93	563	No	2,980	No
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79	--	--	--	--
118-K-1_P2_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	0.23	1.1	No	1.6	No
118-K-1_P2_Shallow_5	non-Rad	Chromium	7440-47-3	ug/kg	7,592	18,500	No	320,000	No
118-K-1_P2_Shallow_5	non-Rad	Cobalt	7440-48-4	ug/kg	8,489	15,700	No	110,000	No
118-K-1_P2_Shallow_5	non-Rad	Copper	7440-50-8	ug/kg	19,300	22,000	No	61,000	No
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32	--	--	--	--
118-K-1_P2_Shallow_5	non-Rad	Iron	7439-89-6	ug/kg	3.01E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_5	non-Rad	Lead	7439-92-1	ug/kg	3,670	10,200	No	74,100	No
118-K-1_P2_Shallow_5	non-Rad	Manganese	7439-96-5	ug/kg	395,939	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58	13	Yes	29	Yes
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550	470	Yes	3,170	No
118-K-1_P2_Shallow_5	non-Rad	Nickel	7440-02-0	ug/kg	8,469	19,100	No	200,000	No
118-K-1_P2_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	28,400	52,000	No	906,000	No
118-K-1_P2_Shallow_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,100	--	--	--	--
118-K-1_P2_Shallow_5	non-Rad	Vanadium	7440-62-2	ug/kg	81,200	85,100	No	140,000	No
118-K-1_P2_Shallow_5	non-Rad	Zinc	7440-66-6	ug/kg	51,700	67,800	No	366,000	No
118-K-1_P2_Shallow_6	non-Rad	Aluminum	7429-90-5	ug/kg	7.45E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_6	non-Rad	Arsenic	7440-38-2	ug/kg	2,540	20,000	No	27,700	No
118-K-1_P2_Shallow_6	non-Rad	Barium	7440-39-3	ug/kg	114,051	132,000	No	480,000	No
118-K-1_P2_Shallow_6	non-Rad	Beryllium	7440-41-7	ug/kg	345	1,510	No	10,000	No
118-K-1_P2_Shallow_6	non-Rad	Boron	7440-42-8	ug/kg	957	3,890	No	5,860	No
118-K-1_P2_Shallow_6	non-Rad	Cadmium	7440-43-9	ug/kg	91	563	No	2,980	No
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81	--	--	--	--
118-K-1_P2_Shallow_6	Rad	Cesium-137	10045-97-3	pCi/g	0.10	1.1	No	1.6	No
118-K-1_P2_Shallow_6	non-Rad	Chromium	7440-47-3	ug/kg	6,250	18,500	No	320,000	No
118-K-1_P2_Shallow_6	non-Rad	Cobalt	7440-48-4	ug/kg	8,456	15,700	No	110,000	No
118-K-1_P2_Shallow_6	non-Rad	Copper	7440-50-8	ug/kg	18,432	22,000	No	61,000	No
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20	--	--	--	--
118-K-1_P2_Shallow_6	non-Rad	Iron	7439-89-6	ug/kg	2.95E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_6	non-Rad	Lead	7439-92-1	ug/kg	4,466	10,200	No	74,100	No
118-K-1_P2_Shallow_6	non-Rad	Manganese	7439-96-5	ug/kg	392,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_6	non-Rad	Molybdenum	7439-98-7	ug/kg	390	470	No	3,170	No
118-K-1_P2_Shallow_6	non-Rad	Nickel	7440-02-0	ug/kg	8,810	19,100	No	200,000	No
118-K-1_P2_Shallow_6	Rad	Tritium	10028-17-8	pCi/g	8.3	--	--	--	--
118-K-1_P2_Shallow_6	non-Rad	Vanadium	7440-62-2	ug/kg	79,215	85,100	No	140,000	No
118-K-1_P2_Shallow_6	non-Rad	Zinc	7440-66-6	ug/kg	56,100	67,800	No	366,000	No
118-K-1_P2_Shallow_7	non-Rad	Aluminum	7429-90-5	ug/kg	9.46E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_7	non-Rad	Antimony	7440-36-0	ug/kg	16,300	130	Yes	385	Yes
118-K-1_P2_Shallow_7	non-Rad	Arsenic	7440-38-2	ug/kg	3,546	20,000	No	27,700	No
118-K-1_P2_Shallow_7	non-Rad	Barium	7440-39-3	ug/kg	73,740	132,000	No	480,000	No
118-K-1_P2_Shallow_7	non-Rad	Beryllium	7440-41-7	ug/kg	365	1,510	No	10,000	No
118-K-1_P2_Shallow_7	non-Rad	Boron	7440-42-8	ug/kg	1,840	3,890	No	5,860	No
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	--	--	--	--
118-K-1_P2_Shallow_7	Rad	Cesium-137	10045-97-3	pCi/g	0.26	1.1	No	1.6	No
118-K-1_P2_Shallow_7	non-Rad	Chromium	7440-47-3	ug/kg	10,300	18,500	No	320,000	No
118-K-1_P2_Shallow_7	non-Rad	Cobalt	7440-48-4	ug/kg	9,670	15,700	No	110,000	No
118-K-1_P2_Shallow_7	non-Rad	Copper	7440-50-8	ug/kg	22,500	22,000	Yes	61,000	No
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76	--	--	--	--
118-K-1_P2_Shallow_7	non-Rad	Iron	7439-89-6	ug/kg	2.91E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142	10,200	Yes	74,100	No
118-K-1_P2_Shallow_7	non-Rad	Manganese	7439-96-5	ug/kg	437,260	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129	13	Yes	29	Yes

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650	470	Yes	3,170	No
118-K-1_P2_Shallow_7	non-Rad	Nickel	7440-02-0	ug/kg	11,900	19,100	No	200,000	No
118-K-1_P2_Shallow_7	Rad	Uranium-233/234	U-233/234	pCi/g	0.69	1.1	No	1.5	No
118-K-1_P2_Shallow_7	Rad	Uranium-238	7440-61-1	pCi/g	0.73	1.1	No	1.2	No
118-K-1_P2_Shallow_7	non-Rad	Vanadium	7440-62-2	ug/kg	79,100	85,100	No	140,000	No
118-K-1_P2_Shallow_7	non-Rad	Zinc	7440-66-6	ug/kg	77,182	67,800	Yes	366,000	No
118-K-1_P2_Shallow_8	non-Rad	Aluminum	7429-90-5	ug/kg	7.63E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_8	non-Rad	Arsenic	7440-38-2	ug/kg	3,422	20,000	No	27,700	No
118-K-1_P2_Shallow_8	non-Rad	Barium	7440-39-3	ug/kg	78,248	132,000	No	480,000	No
118-K-1_P2_Shallow_8	non-Rad	Beryllium	7440-41-7	ug/kg	377	1,510	No	10,000	No
118-K-1_P2_Shallow_8	non-Rad	Boron	7440-42-8	ug/kg	1,020	3,890	No	5,860	No
118-K-1_P2_Shallow_8	non-Rad	Cadmium	7440-43-9	ug/kg	116	563	No	2,980	No
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3	--	--	--	--
118-K-1_P2_Shallow_8	Rad	Cesium-137	10045-97-3	pCi/g	0.15	1.1	No	1.6	No
118-K-1_P2_Shallow_8	non-Rad	Chromium	7440-47-3	ug/kg	8,115	18,500	No	320,000	No
118-K-1_P2_Shallow_8	non-Rad	Cobalt	7440-48-4	ug/kg	13,365	15,700	No	110,000	No
118-K-1_P2_Shallow_8	non-Rad	Copper	7440-50-8	ug/kg	20,000	22,000	No	61,000	No
118-K-1_P2_Shallow_8	non-Rad	Iron	7439-89-6	ug/kg	3.15E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_8	non-Rad	Lead	7439-92-1	ug/kg	6,672	10,200	No	74,100	No
118-K-1_P2_Shallow_8	non-Rad	Manganese	7439-96-5	ug/kg	453,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_8	non-Rad	Molybdenum	7439-98-7	ug/kg	435	470	No	3,170	No
118-K-1_P2_Shallow_8	non-Rad	Nickel	7440-02-0	ug/kg	11,306	19,100	No	200,000	No
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4	--	--	--	--
118-K-1_P2_Shallow_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.76	1.1	No	1.5	No
118-K-1_P2_Shallow_8	Rad	Uranium-238	7440-61-1	pCi/g	0.49	1.1	No	1.2	No
118-K-1_P2_Shallow_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,026	85,100	No	140,000	No
118-K-1_P2_Shallow_8	non-Rad	Zinc	7440-66-6	ug/kg	58,300	67,800	No	366,000	No
118-K-1_P2_Shallow_9	non-Rad	Aluminum	7429-90-5	ug/kg	1.04E+07	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_9	non-Rad	Arsenic	7440-38-2	ug/kg	3,100	20,000	No	27,700	No
118-K-1_P2_Shallow_9	non-Rad	Barium	7440-39-3	ug/kg	84,500	132,000	No	480,000	No
118-K-1_P2_Shallow_9	non-Rad	Beryllium	7440-41-7	ug/kg	369	1,510	No	10,000	No
118-K-1_P2_Shallow_9	non-Rad	Boron	7440-42-8	ug/kg	2,630	3,890	No	5,860	No
118-K-1_P2_Shallow_9	non-Rad	Cadmium	7440-43-9	ug/kg	156	563	No	2,980	No
118-K-1_P2_Shallow_9	Rad	Cesium-137	10045-97-3	pCi/g	0.12	1.1	No	1.6	No
118-K-1_P2_Shallow_9	non-Rad	Chromium	7440-47-3	ug/kg	13,000	18,500	No	320,000	No
118-K-1_P2_Shallow_9	non-Rad	Cobalt	7440-48-4	ug/kg	8,484	15,700	No	110,000	No
118-K-1_P2_Shallow_9	non-Rad	Copper	7440-50-8	ug/kg	17,100	22,000	No	61,000	No
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053	--	--	--	--
118-K-1_P2_Shallow_9	non-Rad	Iron	7439-89-6	ug/kg	2.63E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_9	non-Rad	Lead	7439-92-1	ug/kg	5,349	10,200	No	74,100	No
118-K-1_P2_Shallow_9	non-Rad	Manganese	7439-96-5	ug/kg	400,862	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21	13	Yes	29	No
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641	470	Yes	3,170	No
118-K-1_P2_Shallow_9	non-Rad	Nickel	7440-02-0	ug/kg	11,733	19,100	No	200,000	No
118-K-1_P2_Shallow_9	non-Rad	Nitrate	14797-55-8	ug/kg	231,145	52,000	Yes	906,000	No
118-K-1_P2_Shallow_9	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--	--	--	--
118-K-1_P2_Shallow_9	Rad	Uranium-233/234	U-233/234	pCi/g	0.61	1.1	No	1.5	No
118-K-1_P2_Shallow_9	Rad	Uranium-238	7440-61-1	pCi/g	0.91	1.1	No	1.2	No
118-K-1_P2_Shallow_9	non-Rad	Vanadium	7440-62-2	ug/kg	69,800	85,100	No	140,000	No
118-K-1_P2_Shallow_9	non-Rad	Zinc	7440-66-6	ug/kg	55,577	67,800	No	366,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Aluminum	7429-90-5	ug/kg	7.04E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	369	130	Yes	385	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Arsenic	7440-38-2	ug/kg	3,980	20,000	No	27,700	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Barium	7440-39-3	ug/kg	80,500	132,000	No	480,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Beryllium	7440-41-7	ug/kg	318	1,510	No	10,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Boron	7440-42-8	ug/kg	853	3,890	No	5,860	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Cadmium	7440-43-9	ug/kg	116	563	No	2,980	No
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7	--	--	--	--
118-K-1_P2_Shallow_Focused_3	non-Rad	Chromium	7440-47-3	ug/kg	17,400	18,500	No	320,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Cobalt	7440-48-4	ug/kg	8,820	15,700	No	110,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Copper	7440-50-8	ug/kg	16,400	22,000	No	61,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	3.26E+07	Yes	6.81E+07	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Lead	7439-92-1	ug/kg	2,690	10,200	No	74,100	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Manganese	7439-96-5	ug/kg	464,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481	470	Yes	3,170	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500	19,100	Yes	200,000	No
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-233/234	U-233/234	pCi/g	0.80	1.1	No	1.5	No
118-K-1_P2_Shallow_Focused_3	Rad	Uranium-238	7440-61-1	pCi/g	0.78	1.1	No	1.2	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100	85,100	Yes	140,000	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Zinc	7440-66-6	ug/kg	53,000	67,800	No	366,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Aluminum	7429-90-5	ug/kg	4.41E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Arsenic	7440-38-2	ug/kg	1,560	20,000	No	27,700	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Barium	7440-39-3	ug/kg	52,000	132,000	No	480,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Beryllium	7440-41-7	ug/kg	285	1,510	No	10,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Cadmium	7440-43-9	ug/kg	73	563	No	2,980	No
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1	--	--	--	--
118-K-1_P2_Shallow_Focused_4	non-Rad	Chromium	7440-47-3	ug/kg	2,390	18,500	No	320,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Cobalt	7440-48-4	ug/kg	7,690	15,700	No	110,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Copper	7440-50-8	ug/kg	14,300	22,000	No	61,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Iron	7439-89-6	ug/kg	2.74E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Lead	7439-92-1	ug/kg	2,020	10,200	No	74,100	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Manganese	7439-96-5	ug/kg	316,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Molybdenum	7439-98-7	ug/kg	261	470	No	3,170	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Nickel	7440-02-0	ug/kg	5,640	19,100	No	200,000	No
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-233/234	U-233/234	pCi/g	0.33	1.1	No	1.5	No
118-K-1_P2_Shallow_Focused_4	Rad	Uranium-238	7440-61-1	pCi/g	0.37	1.1	No	1.2	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Vanadium	7440-62-2	ug/kg	65,000	85,100	No	140,000	No
118-K-1_P2_Shallow_Focused_4	non-Rad	Zinc	7440-66-6	ug/kg	44,300	67,800	No	366,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Aluminum	7429-90-5	ug/kg	5.27E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Arsenic	7440-38-2	ug/kg	1,600	20,000	No	27,700	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Barium	7440-39-3	ug/kg	55,700	132,000	No	480,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Beryllium	7440-41-7	ug/kg	196	1,510	No	10,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Boron	7440-42-8	ug/kg	483	3,890	No	5,860	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Cadmium	7440-43-9	ug/kg	66	563	No	2,980	No
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3	--	--	--	--
118-K-1_P2_Shallow_Focused_5	non-Rad	Chromium	7440-47-3	ug/kg	3,900	18,500	No	320,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Cobalt	7440-48-4	ug/kg	7,390	15,700	No	110,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Copper	7440-50-8	ug/kg	14,200	22,000	No	61,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Iron	7439-89-6	ug/kg	2.53E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Lead	7439-92-1	ug/kg	1,630	10,200	No	74,100	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Manganese	7439-96-5	ug/kg	293,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Molybdenum	7439-98-7	ug/kg	328	470	No	3,170	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Nickel	7440-02-0	ug/kg	5,780	19,100	No	200,000	No
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-233/234	U-233/234	pCi/g	0.37	1.1	No	1.5	No
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-235	15117-96-1	pCi/g	0.026	0.11	No	0.39	No
118-K-1_P2_Shallow_Focused_5	Rad	Uranium-238	7440-61-1	pCi/g	0.42	1.1	No	1.2	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Vanadium	7440-62-2	ug/kg	70,300	85,100	No	140,000	No
118-K-1_P2_Shallow_Focused_5	non-Rad	Zinc	7440-66-6	ug/kg	42,300	67,800	No	366,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Aluminum	7429-90-5	ug/kg	9.10E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Arsenic	7440-38-2	ug/kg	3,740	20,000	No	27,700	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Barium	7440-39-3	ug/kg	86,200	132,000	No	480,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Beryllium	7440-41-7	ug/kg	302	1,510	No	10,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Boron	7440-42-8	ug/kg	1,390	3,890	No	5,860	No
118-K-1_P2_Shallow_Focused_6	Rad	Cesium-137	10045-97-3	pCi/g	0.63	1.1	No	1.6	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300	18,500	Yes	320,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Cobalt	7440-48-4	ug/kg	6,710	15,700	No	110,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Copper	7440-50-8	ug/kg	17,200	22,000	No	61,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Iron	7439-89-6	ug/kg	1.80E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Lead	7439-92-1	ug/kg	4,810	10,200	No	74,100	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Manganese	7439-96-5	ug/kg	315,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400	19,100	Yes	200,000	No
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12	--	--	--	--
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-233/234	U-233/234	pCi/g	0.55	1.1	No	1.5	No
118-K-1_P2_Shallow_Focused_6	Rad	Uranium-238	7440-61-1	pCi/g	0.82	1.1	No	1.2	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Vanadium	7440-62-2	ug/kg	43,900	85,100	No	140,000	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Zinc	7440-66-6	ug/kg	40,300	67,800	No	366,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Aluminum	7429-90-5	ug/kg	6.68E+06	1.18E+07	No	2.88E+07	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Arsenic	7440-38-2	ug/kg	4,160	20,000	No	27,700	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Barium	7440-39-3	ug/kg	67,700	132,000	No	480,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Beryllium	7440-41-7	ug/kg	280	1,510	No	10,000	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
118-K-1_P2_Shallow_Focused_8	non-Rad	Boron	7440-42-8	ug/kg	796	3,890	No	5,860	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Cadmium	7440-43-9	ug/kg	102	563	No	2,980	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Chromium	7440-47-3	ug/kg	7,040	18,500	No	320,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Cobalt	7440-48-4	ug/kg	7,220	15,700	No	110,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Copper	7440-50-8	ug/kg	13,400	22,000	No	61,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Iron	7439-89-6	ug/kg	2.73E+07	3.26E+07	No	6.81E+07	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Lead	7439-92-1	ug/kg	3,480	10,200	No	74,100	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Manganese	7439-96-5	ug/kg	369,000	512,000	No	1.11E+06	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Molybdenum	7439-98-7	ug/kg	428	470	No	3,170	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Nickel	7440-02-0	ug/kg	8,980	19,100	No	200,000	No
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-233/234	U-233/234	pCi/g	0.35	1.1	No	1.5	No
118-K-1_P2_Shallow_Focused_8	Rad	Uranium-238	7440-61-1	pCi/g	0.40	1.1	No	1.2	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Vanadium	7440-62-2	ug/kg	82,100	85,100	No	140,000	No
118-K-1_P2_Shallow_Focused_8	non-Rad	Zinc	7440-66-6	ug/kg	48,300	67,800	No	366,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,570	20,000	No	27,700	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Barium	7440-39-3	ug/kg	70,251	132,000	No	480,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	449	1,510	No	10,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,273	3,890	No	5,860	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	7,530	18,500	No	320,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,072	15,700	No	110,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Copper	7440-50-8	ug/kg	19,296	22,000	No	61,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Fluoride	16984-48-8	ug/kg	1,910	2,810	No	73,300	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108	--	--	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893	10,200	Yes	74,100	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	402,937	512,000	No	1.11E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559	470	Yes	3,170	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	10,189	19,100	No	200,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	10,319	52,000	No	906,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120	780	Yes	840	Yes
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645	--	--	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568	--	--	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	561	3,210	No	4,042	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	82,017	85,100	No	140,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	55,448	67,800	No	366,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	130	130	No	385	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	2,800	20,000	No	27,700	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	101,000	132,000	No	480,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	420	1,510	No	10,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100	3,890	Yes	5,860	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	87	563	No	2,980	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	6,400	18,500	No	320,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	10,600	15,700	No	110,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900	22,000	Yes	61,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	3,200	10,200	No	74,100	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	316,000	512,000	No	1.11E+06	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610	470	Yes	3,170	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	8,700	19,100	No	200,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000	780	Yes	840	Yes
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	82	167	No	273	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900	--	--	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600	--	--	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Uranium	7440-61-1	ug/kg	850	3,210	No	4,042	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600	85,100	Yes	140,000	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	62,600	67,800	No	366,000	No
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,700	20,000	No	27,700	No
128-K-1_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	71,500	132,000	No	480,000	No
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	350	563	No	2,980	No
128-K-1_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	13,500	18,500	No	320,000	No
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800	10,200	Yes	74,100	No
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30	13	Yes	29	Yes
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000	--	--	--	--
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800	780	Yes	840	No
128-K-1_Shallow_Focused	non-Rad	Total petroleum hydrocarbons	TPH	ug/kg	14,400	--	--	--	--
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18	--	--	--	--
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10	--	--	--	--
128-K-2_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	8.07E+06	1.18E+07	No	2.88E+07	No
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11	--	--	--	--
128-K-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	500	130	Yes	385	Yes
128-K-2_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,263	20,000	No	27,700	No
128-K-2_Shallow	non-Rad	Barium	7440-39-3	ug/kg	68,960	132,000	No	480,000	No
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27	--	--	--	--
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28	--	--	--	--
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33	--	--	--	--
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4	--	--	--	--
128-K-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	519	1,510	No	10,000	No
128-K-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,928	3,890	No	5,860	No
128-K-2_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	153	563	No	2,980	No
128-K-2_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	10,922	18,500	No	320,000	No
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14	--	--	--	--
128-K-2_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,021	15,700	No	110,000	No
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	22,000	Yes	61,000	No
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16	--	--	--	--
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41	--	--	--	--
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14	--	--	--	--
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18	--	--	--	--
128-K-2_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.20E+07	3.26E+07	No	6.81E+07	No
128-K-2_Shallow	non-Rad	Lead	7439-92-1	ug/kg	9,642	10,200	No	74,100	No
128-K-2_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	324,704	512,000	No	1.11E+06	No
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	13	Yes	29	No
128-K-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	250	470	No	3,170	No
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--	--	--	--
128-K-2_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	11,030	19,100	No	200,000	No
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--	--	--	--
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973	780	Yes	840	Yes
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	3,425	--	--	--	--
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	4,568	--	--	--	--
128-K-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	49,084	85,100	No	140,000	No
128-K-2_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	49,542	67,800	No	366,000	No
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.26E+06	1.18E+07	No	2.88E+07	No
128-K-2_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	410	130	Yes	385	Yes
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	3,300	20,000	No	27,700	No
128-K-2_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	76,000	132,000	No	480,000	No
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	540	1,510	No	10,000	No
128-K-2_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	3,300	3,890	No	5,860	No
128-K-2_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	190	563	No	2,980	No
128-K-2_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	14,600	18,500	No	320,000	No
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,400	15,700	No	110,000	No
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600	22,000	Yes	61,000	Yes
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.11E+07	3.26E+07	No	6.81E+07	No
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300	10,200	Yes	74,100	No

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
128-K-2_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	332,000	512,000	No	1.11E+06	No
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	13	Yes	29	Yes
128-K-2_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	300	470	No	3,170	No
128-K-2_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	14,300	19,100	No	200,000	No
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100	780	Yes	840	Yes
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	560,000	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	1.20E+06	--	--	--	--
128-K-2_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	45,300	85,100	No	140,000	No
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000	67,800	Yes	366,000	No
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040	--	--	--	--
132-KE-1_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	2,770	20,000	No	27,700	No
132-KE-1_Shallow	non-Rad	Barium	7440-39-3	ug/kg	60,800	132,000	No	480,000	No
132-KE-1_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	301	1,510	No	10,000	No
132-KE-1_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	77	563	No	2,980	No
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	--	--	--	--
132-KE-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	0.42	1.1	No	1.6	No
132-KE-1_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	6,770	18,500	No	320,000	No
132-KE-1_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	9,270	15,700	No	110,000	No
132-KE-1_Shallow	non-Rad	Copper	7440-50-8	ug/kg	16,500	22,000	No	61,000	No
132-KE-1_Shallow	non-Rad	Lead	7439-92-1	ug/kg	5,340	10,200	No	74,100	No
132-KE-1_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	308,000	512,000	No	1.11E+06	No
132-KE-1_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	397	470	No	3,170	No
132-KE-1_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	8,340	19,100	No	200,000	No
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041	0.025	Yes	0.033	Yes
132-KE-1_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	267	780	No	840	No
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500	--	--	--	--
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494	--	--	--	--
132-KE-1_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	467	3,210	No	4,042	No
132-KE-1_Shallow	Rad	Uranium-233/234	U-233/234	pCi/g	0.15	1.1	No	1.5	No
132-KE-1_Shallow	Rad	Uranium-235	15117-96-1	pCi/g	0.015	0.11	No	0.39	No
132-KE-1_Shallow	Rad	Uranium-238	7440-61-1	pCi/g	0.14	1.1	No	1.2	No
132-KE-1_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	56,900	85,100	No	140,000	No
132-KE-1_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	44,800	67,800	No	366,000	No
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	--	--	--	--
1607-K3_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	3,490	20,000	No	27,700	No
1607-K3_Shallow	non-Rad	Barium	7440-39-3	ug/kg	78,400	132,000	No	480,000	No
1607-K3_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	384	1,510	No	10,000	No
1607-K3_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,630	3,890	No	5,860	No
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200	18,500	Yes	320,000	No
1607-K3_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	12,300	15,700	No	110,000	No
1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	20,800	22,000	No	61,000	No
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100	10,200	Yes	74,100	No
1607-K3_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	440,000	512,000	No	1.11E+06	No
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59	13	Yes	29	Yes
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550	470	Yes	3,170	No
1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	18,800	19,100	No	200,000	No
1607-K3_Shallow	non-Rad	Nitrate	14797-55-8	ug/kg	8,590	52,000	No	906,000	No
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886	780	Yes	840	Yes
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500	--	--	--	--
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549	--	--	--	--
1607-K3_Shallow	non-Rad	Uranium	7440-61-1	ug/kg	668	3,210	No	4,042	No
1607-K3_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	74,600	85,100	No	140,000	No
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900	67,800	Yes	366,000	No
600-29_Shallow	non-Rad	Aluminum	7429-90-5	ug/kg	9.29E+06	1.18E+07	No	2.88E+07	No
600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	520	130	Yes	385	Yes
600-29_Shallow	non-Rad	Arsenic	7440-38-2	ug/kg	10,358	20,000	No	27,700	No
600-29_Shallow	non-Rad	Barium	7440-39-3	ug/kg	75,216	132,000	No	480,000	No
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67	--	--	--	--
600-29_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	653	1,510	No	10,000	No
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103	--	--	--	--
600-29_Shallow	non-Rad	Boron	7440-42-8	ug/kg	1,759	3,890	No	5,860	No
600-29_Shallow	non-Rad	Cadmium	7440-43-9	ug/kg	105	563	No	2,980	No
600-29_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	11,813	18,500	No	320,000	No
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46	--	--	--	--

Table 7-3. Comparison of EPCs for Waste Site Decision Units in the 100-KR-1&2 Operable Unit to Hanford Site Soil Background Values

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Lognormal 90th Percentile Background Value	Is EPC > Background?	Maximum Background Value	Is EPC > Maximum Background?
600-29_Shallow	non-Rad	Cobalt	7440-48-4	ug/kg	8,224	15,700	No	110,000	No
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	22,000	Yes	61,000	No
600-29_Shallow	non-Rad	Iron	7439-89-6	ug/kg	2.30E+07	3.26E+07	No	6.81E+07	No
600-29_Shallow	non-Rad	Lead	7439-92-1	ug/kg	6,752	10,200	No	74,100	No
600-29_Shallow	non-Rad	Manganese	7439-96-5	ug/kg	348,791	512,000	No	1.11E+06	No
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	13	Yes	29	No
600-29_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	274	470	No	3,170	No
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	19,100	Yes	200,000	No
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87	--	--	--	--
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985	780	Yes	840	Yes
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	22,077	--	--	--	--
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	31,433	--	--	--	--
600-29_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	69,344	85,100	No	140,000	No
600-29_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	53,782	67,800	No	366,000	No
600-29_Shallow_Focused	non-Rad	Aluminum	7429-90-5	ug/kg	9.83E+06	1.18E+07	No	2.88E+07	No
600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	450	130	Yes	385	Yes
600-29_Shallow_Focused	non-Rad	Arsenic	7440-38-2	ug/kg	6,800	20,000	No	27,700	No
600-29_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	68,500	132,000	No	480,000	No
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72	--	--	--	--
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--	--	--	--
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--	--	--	--
600-29_Shallow_Focused	non-Rad	Beryllium	7440-41-7	ug/kg	620	1,510	No	10,000	No
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120	--	--	--	--
600-29_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	2,000	3,890	No	5,860	No
600-29_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	160	563	No	2,980	No
600-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	12,600	18,500	No	320,000	No
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90	--	--	--	--
600-29_Shallow_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	7,900	15,700	No	110,000	No
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900	22,000	Yes	61,000	No
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240	--	--	--	--
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100	--	--	--	--
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96	--	--	--	--
600-29_Shallow_Focused	non-Rad	Iron	7439-89-6	ug/kg	2.43E+07	3.26E+07	No	6.81E+07	No
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700	10,200	Yes	74,100	No
600-29_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	347,000	512,000	No	1.11E+06	No
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	13	Yes	29	No
600-29_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	290	470	No	3,170	No
600-29_Shallow_Focused	non-Rad	Nickel	7440-02-0	ug/kg	13,300	19,100	No	200,000	No
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96	--	--	--	--
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940	780	Yes	840	Yes
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180	167	Yes	273	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	20,000	--	--	--	--
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,000	--	--	--	--
600-29_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	56,200	85,100	No	140,000	No
600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	67,700	67,800	No	366,000	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-102_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	595	186,126	15	12,743	130	330	12,743	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149	6,000[b]	15	6,000	---	500	6,000	GWP SSL	No
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	79,331	15	5,431	13	200	5,431	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593	953,947	15	65,309	470	2,000	65,309	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	139,329	15	9,539	780	1,000	9,539	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455	2.07E+08	15	1.41E+07	---	1,000	1.41E+07	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689	3.89E+08	15	2.66E+07	---	10,000	2.66E+07	Scaled GWP SSL	No
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913	2.66E+08	15	1.82E+07	67,800	1,000	1.82E+07	Scaled GWP SSL	No
100-K-102_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	445	186,126	15	12,743	130	330	12,743	Scaled GWP SSL	No
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	18,834	15	1,289	563	500	1,289	Scaled GWP SSL	No
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	79,331	15	5,431	13	200	5,431	Scaled GWP SSL	No
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284	2.07E+08	15	1.41E+07	---	1,000	1.41E+07	Scaled GWP SSL	No
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478	3.89E+08	15	2.66E+07	---	10,000	2.66E+07	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	463	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610	3.89E+08	1.0	3.89E+08	2,810	5,000	3.89E+08	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000	2.34E+07	1.0	2.34E+07	512,000	5,000	2.34E+07	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700	--c	1.0	--c	85,100	2,500	--c	-	-
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290	6,000[b]	11	6,000	---	500	6,000	GWP SSL	No
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000	2.07E+08	11	1.95E+07	---	1,000	1.95E+07	Scaled GWP SSL	No
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660	3.89E+08	11	3.67E+07	---	10,000	3.67E+07	Scaled GWP SSL	No
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6,000[b]	11	6,000	---	500	6,000	GWP SSL	No
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000	2.07E+08	11	1.95E+07	---	1,000	1.95E+07	Scaled GWP SSL	No
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570	3.89E+08	11	3.67E+07	---	10,000	3.67E+07	Scaled GWP SSL	No
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160	6,000[b]	11	6,000	---	500	6,000	GWP SSL	No
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000	2.07E+08	11	1.95E+07	---	1,000	1.95E+07	Scaled GWP SSL	No
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590	3.89E+08	11	3.67E+07	---	10,000	3.67E+07	Scaled GWP SSL	No
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500	2.07E+08	4.8	4.32E+07	---	1,000	4.32E+07	Scaled GWP SSL	No
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332	3.89E+08	4.8	8.13E+07	---	10,000	8.13E+07	Scaled GWP SSL	No
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_2	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	6,500	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_3	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	46,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-106_Shallow_Focused_6	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	50,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76	79,331	21	3,703	13	200	3,703	Scaled GWP SSL	No
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480	953,947	21	44,525	470	2,000	44,525	Scaled GWP SSL	No
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	139,329	21	6,503	780	1,000	6,503	Scaled GWP SSL	No
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362	2.07E+08	21	9.64E+06	---	1,000	9.64E+06	Scaled GWP SSL	No
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446	3.89E+08	21	1.82E+07	---	10,000	1.82E+07	Scaled GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417	186,126	134	1,386	130	330	1,386	Scaled GWP SSL	Yes
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199	6,000[b]	134	6,000	---	500	6,000	GWP SSL	No
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	1.67E+08	134	1.24E+06	3.26E+07	---	3.26E+07	Background	Yes
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	79,331	134	591	13	200	591	Scaled GWP SSL	No
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587	953,947	134	7,105	470	2,000	7,105	Scaled GWP SSL	No
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	139,329	134	1,038	780	1,000	1,038	Scaled GWP SSL	Yes
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258	2.07E+08	134	1.54E+06	---	1,000	1.54E+06	Scaled GWP SSL	No
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994	3.89E+08	134	2.90E+06	---	10,000	2.90E+06	Scaled GWP SSL	No
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	2.66E+08	134	1.98E+06	67,800	1,000	1.98E+06	Scaled GWP SSL	No
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870	18,834	1.0	18,834	563	500	18,834	Scaled GWP SSL	No
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,152	186,126	11	17,226	130	330	17,226	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633	--c	11	--c	1,510	500	--c	-	-
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604	5.38E+06	11	498,235	3,890	2,000	498,235	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	79,331	11	7,342	13	200	7,342	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222	953,947	11	88,287	470	2,000	88,287	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141	139,329	11	12,895	780	1,000	12,895	Scaled GWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958	385,420	11	35,670	167	200	35,670	Scaled GWP SSL	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067	--c	11	--c	85,100	2,500	--c	-	-
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233	6,000[b]	7.0	6,000	---	500	6,000	GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	68	79,331	7.0	11,359	13	200	11,359	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	622	953,947	7.0	136,590	470	2,000	136,590	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,057	139,329	7.0	19,950	780	1,000	19,950	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	34,319	2.07E+08	7.0	2.96E+07	---	1,000	2.96E+07	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	626	3.89E+08	7.0	5.57E+07	---	10,000	5.57E+07	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	87,520	--c	7.0	--c	85,100	2,500	--c	-	-
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	290	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	510	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,700	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	20,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	480	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700	--c	1.0	--c	18,500	1,000	--c	-	-
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,520	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7	99,567	1.0	99,567	---	17	99,567	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	597	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--c	1.0	--c	0.0038	1.0	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	374	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24	--c	1.0	--c	---	17	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15	--c	1.0	--c	---	0.10	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Antimony	7440-36-0	ug/kg	319	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990	5.38E+06	1.0	5.38E+06	3,890	2,000	5.38E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68	--c	1.0	--c	---	30	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58	2.62E+06	1.0	2.62E+06	---	330	2.62E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5	2.83E+06	1.0	2.83E+06	---	330	2.83E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29	110,036	1.0	110,036	---	330	110,036	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Antimony	7440-36-0	ug/kg	392	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.36	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	48	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--c	1.0	--c	0.0038	1.0	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	26,400	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	16	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	410	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092	92,105	3.0	30,347	---	1.0	30,347	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	193	186,126	3.0	61,326	130	330	61,326	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	3.0	128,170	1.1	0.10	128,170	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--c	3.0	--c	0.0084	0.050	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28	--c	3.0	--c	---	0.10	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026	--c	3.0	--c	0.0038	1.0	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16	--c	3.0	--c	0.025	1.0	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952	2.07E+08	3.0	6.81E+07	---	1,000	6.81E+07	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89	22,536	3.0	7,425	0.18	1.0	7,425	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456	3.89E+08	3.0	1.28E+08	---	10,000	1.28E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Anthracene	120-12-7	ug/kg	2.2	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	12	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	18	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0	--c	1.0	--c	---	330	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Selenium	7782-49-2	ug/kg	1,800	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	25,400	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	590	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	1,200	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12	--c	1.0	--c	---	17	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47	--c	1.0	--c	---	15	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chrysene	218-01-9	ug/kg	73	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Europium-152	14683-23-9	pCi/g	0.23	--c	1.0	--c	---	0.10	--c	-	-
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	150	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	1,600	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	27,800	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Strontium-90	10098-97-2	pCi/g	0.96	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	570	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
100-K-3_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	554	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44	--c	1.0	--c	---	0.10	--c	-	-
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054	--c	1.0	--c	0.025	1.0	--c	-	-
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640	18,834	1.0	18,834	563	500	18,834	Scaled GWP SSL	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	5.37E+07	1.0	5.37E+07	132,000	2,000	5.37E+07	Scaled GWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750	18,834	1.0	18,834	563	500	18,834	Scaled GWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000	18,834	1.0	18,834	563	500	18,834	Scaled GWP SSL	No
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900	--c	1.0	--c	18,500	1,000	--c	-	-
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	417	186,126	15	12,743	130	330	12,743	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	8.40E+06	15	575,347	22,000	1,000	575,347	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124	6,000[b]	15	6,000	---	500	6,000	GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110	--c	15	--c	10,200	5,000	--c	-	-
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189	79,331	15	5,431	13	200	5,431	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967	953,947	15	65,309	470	2,000	65,309	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176	6.10E+06	15	417,516	19,100	4,000	417,516	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700	2.07E+08	15	1.41E+07	---	1,000	1.41E+07	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620	3.89E+08	15	2.66E+07	---	10,000	2.66E+07	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	7,700	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950	18,834	1.0	18,834	563	500	18,834	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700	3.89E+08	1.0	3.89E+08	2,810	5,000	3.89E+08	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200	--c	1.0	--c	85,100	2,500	--c	-	-
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641	953,947	2.9	326,006	470	2,000	326,006	Scaled GWP SSL	No
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913	139,329	2.9	47,615	780	1,000	47,615	Scaled GWP SSL	No
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600	2.07E+08	2.9	7.06E+07	---	1,000	7.06E+07	Scaled GWP SSL	No
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480	3.89E+08	2.9	1.33E+08	---	10,000	1.33E+08	Scaled GWP SSL	No
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400	--c	2.9	--c	85,100	2,500	--c	-	-
100-K-36_Deep_Focused	non-Rad	Antimony	7440-36-0	ug/kg	315	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	5.37E+07	1.0	5.37E+07	132,000	2,000	5.37E+07	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900	148,901	1.0	148,901	15,700	2,000	148,901	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000	2.34E+07	1.0	2.34E+07	512,000	5,000	2.34E+07	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000	6.10E+06	1.0	6.10E+06	19,100	4,000	6.10E+06	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000	--c	1.0	--c	85,100	2,500	--c	-	-
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500	2.07E+08	1.00	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452	3.89E+08	1.00	3.90E+08	---	10,000	3.90E+08	Scaled GWP SSL	No
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000	5.37E+07	37	1.44E+06	132,000	2,000	1.44E+06	Scaled GWP SSL	No
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700	5.38E+06	37	144,885	3,890	2,000	144,885	Scaled GWP SSL	No
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	139,329	37	3,750	780	1,000	3,750	Scaled GWP SSL	No
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010	2.07E+08	37	5.56E+06	---	1,000	5.56E+06	Scaled GWP SSL	No
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430	3.89E+08	37	1.05E+07	---	10,000	1.05E+07	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	320	186,126	37	5,009	130	330	5,009	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800	5.38E+06	37	144,885	3,890	2,000	144,885	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325	--c	37	--c	10,200	5,000	--c	-	-
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483	953,947	37	25,674	470	2,000	25,674	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	139,329	37	3,750	780	1,000	3,750	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529	2.07E+08	37	5.56E+06	---	1,000	5.56E+06	Scaled GWP SSL	No
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516	3.89E+08	37	1.05E+07	---	10,000	1.05E+07	Scaled GWP SSL	No
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43	92,105	1.8	52,415	---	1.0	52,415	Scaled GWP SSL	No
100-K-46_Deep	non-Rad	Antimony	7440-36-0	ug/kg	1,180	186,126	1.8	105,920	130	330	105,920	Scaled GWP SSL	No
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6	57	1.8	32	---	2.0	32	Scaled GWP SSL	No
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2	389,000	1.8	221,371	1.1	0.10	221,371	Scaled GWP SSL	No
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500	--c	1.8	--c	18,500	1,000	--c	-	-
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	8.40E+06	1.8	4.78E+06	22,000	1,000	4.78E+06	Scaled GWP SSL	No
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770	953,947	1.8	542,870	470	2,000	542,870	Scaled GWP SSL	No
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300	6.10E+06	1.8	3.47E+06	19,100	4,000	3.47E+06	Scaled GWP SSL	No
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--c	1.8	--c	0.0038	1.0	--c	-	-
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33	--c	1.8	--c	0.025	1.0	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000	2.07E+08	1.8	1.18E+08	---	1,000	1.18E+08	Scaled GWP SSL	No
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99	22,536	1.8	12,825	0.18	1.0	12,825	Scaled GWP SSL	No
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720	3.89E+08	1.8	2.21E+08	---	10,000	2.21E+08	Scaled GWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	3.0	30,347	---	1.0	30,347	Scaled GWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050	--c	3.0	--c	0.0084	0.050	--c	-	-
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68	--c	3.0	--c	---	0.10	--c	-	-
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035	--c	3.0	--c	0.0038	1.0	--c	-	-
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23	--c	3.0	--c	0.025	--c	--c	-	-
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600	2.07E+08	3.0	6.81E+07	---	1,000	6.81E+07	Scaled GWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8	22,536	3.0	7,425	0.18	1.0	7,425	Scaled GWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400	3.89E+08	3.0	1.28E+08	---	10,000	1.28E+08	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8	2.62E+06	8.4	310,630	---	330	310,630	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16	6.73E+07	8.4	7.97E+06	---	600	7.97E+06	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,960	186,126	8.4	22,057	130	330	22,057	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2	14,979	8.4	1,775	---	17	1,775	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4	--c	8.4	--c	---	17	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169	7.67E+06	8.4	909,189	---	15	909,189	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107	--c	8.4	--c	---	15	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181	--c	8.4	--c	---	15	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27	--c	8.4	--c	---	15	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011	5.38E+06	8.4	637,976	3,890	2,000	637,976	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208	3.89E+08	8.4	4.61E+07	---	100	4.61E+07	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30	--c	8.4	--c	---	30	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225	2.30E+07	8.4	2.72E+06	---	330	2.72E+06	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	2.83E+06	8.4	335,004	---	330	335,004	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383	6,000[b]	8.4	6,000	---	500	6,000	GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70	--c	8.4	--c	---	330	--c	-	-
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126	79,331	8.4	9,401	13	200	9,401	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565	953,947	8.4	113,049	470	2,000	113,049	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223	3.22E+07	8.4	3.81E+06	---	330	3.81E+06	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990	139,329	8.4	16,511	780	1,000	16,511	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785	385,420	8.4	45,675	167	200	45,675	Scaled GWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	4,217	2.00E+06[d]	8.4	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78	--c	1.0	--c	---	0.10	--c	-	-
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29	--c	1.0	--c	0.033	0.10	--c	-	-
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0	--c	1.0	--c	---	0.10	--c	-	-
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23	--c	1.0	--c	0.033	0.10	--c	-	-
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3	--c	1.0	--c	---	0.10	--c	-	-
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19	--c	1.0	--c	0.033	0.10	--c	-	-
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31	--c	1.0	--c	---	0.10	--c	-	-
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0	--c	1.0	--c	0.033	0.10	--c	-	-
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3	--c	1.0	--c	---	0.10	--c	-	-
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1	--c	1.0	--c	---	0.10	--c	-	-
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33	--c	1.0	--c	0.033	0.10	--c	-	-
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	14	6,702	---	1.0	6,702	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	57	14	4.1	---	2.0	4.1	Scaled GWP SSL	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7	389,000	14	28,303	1.1	0.10	28,303	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31	--c	14	--c	---	0.10	--c	-	-
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--c	14	--c	0.033	0.10	--c	-	-
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482	953,947	14	69,408	470	2,000	69,408	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030	--c	14	--c	0.0038	1.0	--c	-	-
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13	--c	14	--c	0.025	1.0	--c	-	-
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747	2.07E+08	14	1.50E+07	---	1,000	1.50E+07	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79	22,536	14	1,640	0.18	1.0	1,640	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450	3.89E+08	14	2.83E+07	---	10,000	2.83E+07	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1	92,105	14	6,702	---	1.0	6,702	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	57	14	4.1	---	2.0	4.1	Scaled GWP SSL	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	14	28,303	1.1	0.10	28,303	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595	953,947	14	69,408	470	2,000	69,408	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23	--c	14	--c	0.0038	1.0	--c	-	-
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2	--c	14	--c	0.025	1.0	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177	2.07E+08	14	1.50E+07	---	1,000	1.50E+07	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11	22,536	14	1,640	0.18	1.0	1,640	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594	3.89E+08	14	2.83E+07	---	10,000	2.83E+07	Scaled GWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3	1,040	14	76	---	---	76	Scaled GWP SSL	No
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055	92,105	2.1	43,064	---	1.0	43,064	Scaled GWP SSL	No
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	57	2.1	27	---	2.0	27	Scaled GWP SSL	Yes
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042	--c	2.1	--c	0.025	1.0	--c	-	-
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800	2.07E+08	2.1	9.66E+07	---	1,000	9.66E+07	Scaled GWP SSL	No
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477	3.89E+08	2.1	1.82E+08	---	10,000	1.82E+08	Scaled GWP SSL	No
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	14	6,702	---	1.0	6,702	Scaled GWP SSL	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	57	14	4.1	---	2.0	4.1	Scaled GWP SSL	Yes
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--c	14	--c	0.0038	1.0	--c	-	-
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20	--c	14	--c	0.025	1.0	--c	-	-
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900	2.07E+08	14	1.50E+07	---	1,000	1.50E+07	Scaled GWP SSL	No
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76	22,536	14	1,640	0.18	1.0	1,640	Scaled GWP SSL	No
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383	3.89E+08	14	2.83E+07	---	10,000	2.83E+07	Scaled GWP SSL	No
100-K-63_Shallow_1	non-Rad	Antimony	7440-36-0	ug/kg	190	186,126	146	1,271	130	330	1,271	Scaled GWP SSL	No
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023	--c	146	--c	0.0084	0.050	--c	-	-
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19	--c	146	--c	---	0.10	--c	-	-
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--c	146	--c	0.033	0.10	--c	-	-
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20	--c	146	--c	0.054	0.10	--c	-	-
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152	6,000[b]	146	6,000	---	500	6,000	GWP SSL	No
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14	79,331	146	542	13	200	542	Scaled GWP SSL	No
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	139,329	146	951	780	1,000	1,000	RDL	Yes
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553	2.07E+08	146	1.41E+06	---	1,000	1.41E+06	Scaled GWP SSL	No
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1	22,536	146	154	0.18	1.0	154	Scaled GWP SSL	No
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937	3.89E+08	146	2.66E+06	---	10,000	2.66E+06	Scaled GWP SSL	No
100-K-63_Shallow_2	non-Rad	Antimony	7440-36-0	ug/kg	316	186,126	146	1,271	130	330	1,271	Scaled GWP SSL	No
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041	--c	146	--c	0.0084	0.050	--c	-	-
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091	--c	146	--c	---	0.10	--c	-	-
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14	--c	146	--c	0.033	0.10	--c	-	-
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047	--c	146	--c	10,200	5,000	--c	-	-
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675	953,947	146	6,512	470	2,000	6,512	Scaled GWP SSL	No
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874	139,329	146	951	780	1,000	1,000	RDL	No
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140	2.07E+08	146	1.41E+06	---	1,000	1.41E+06	Scaled GWP SSL	No
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467	3.89E+08	146	2.66E+06	---	10,000	2.66E+06	Scaled GWP SSL	No
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	2.66E+08	146	1.81E+06	67,800	1,000	1.81E+06	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57	2.62E+06	3.2	809,270	---	330	809,270	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2	6.73E+07	3.2	2.08E+07	---	600	2.08E+07	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	1,110	186,126	3.2	57,465	130	330	57,465	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13	--c	3.2	--c	---	15	--c	-	-
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--c	3.2	--c	---	15	--c	-	-
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2	--c	3.2	--c	---	15	--c	-	-
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13	3.89E+08	3.2	1.20E+08	---	100	1.20E+08	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30	2.30E+07	3.2	7.09E+06	---	330	7.09E+06	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8	2.83E+06	3.2	872,770	---	330	872,770	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130	6,000[b]	3.2	6,000	---	500	6,000	GWP SSL	No
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17	--c	3.2	--c	---	330	--c	-	-
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389	953,947	3.2	294,522	470	2,000	294,522	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	3.22E+07	3.2	9.93E+06	---	330	9.93E+06	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927	139,329	3.2	43,017	780	1,000	43,017	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917	2.07E+08	3.2	6.38E+07	---	1,000	6.38E+07	Scaled GWP SSL	No
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160	3.89E+08	3.2	1.20E+08	---	10,000	1.20E+08	Scaled GWP SSL	No
100-K-78_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	391	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--c	1.0	--c	18,500	1,000	--c	-	-
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073	--c	1.0	--c	0.0084	0.050	--c	-	-
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27	--c	1.0	--c	---	0.10	--c	-	-
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2	19,048	1.0	19,048	---	30	19,048	Scaled GWP SSL	No
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	8.40E+06	6.5	1.30E+06	22,000	1,000	1.30E+06	Scaled GWP SSL	No
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	79,331	6.5	12,253	13	200	12,253	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	470	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10	--c	1.0	--c	---	15	--c	-	-
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12	--c	1.0	--c	---	15	--c	-	-
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	84,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-86_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	160,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-88_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	890	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500	5.38E+06	1.0	5.38E+06	3,890	2,000	5.38E+06	Scaled GWP SSL	No
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	434	186,126	197	944	130	330	944	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42	7.67E+06	197	38,918	---	15	38,918	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39	--c	197	--c	---	15	--c	-	-
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65	--c	197	--c	---	15	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47	3.89E+08	197	1.97E+06	---	100	1.97E+06	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	2.30E+07	197	116,428	---	330	116,428	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63	3.22E+07	197	163,158	---	330	163,158	Scaled GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896	139,329	197	707	780	1,000	1,000	RDL	No
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	31,656	2.00E+06[d]	197	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	59,899	2.00E+06[d]	197	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	4,100	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100	--c	1.0	--c	---	15	--c	-	-
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260	--c	1.0	--c	---	15	--c	-	-
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42	--c	1.0	--c	---	330	--c	-	-
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900	--c	1.0	--c	10,200	5,000	--c	-	-
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	90,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	140,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76	1.31E+06	1.0	1.31E+06	---	330	1.31E+06	Scaled GWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	14,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	29,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19	2.62E+06	131	20,006	---	330	20,006	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54	7.67E+06	131	58,556	---	15	58,556	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27	--c	131	--c	---	15	--c	-	-
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45	--c	131	--c	---	15	--c	-	-
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18	--c	131	--c	---	15	--c	-	-
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59	3.89E+08	131	2.97E+06	---	100	2.97E+06	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119	2.30E+07	131	175,178	---	330	175,178	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9	2.83E+06	131	21,576	---	330	21,576	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20	--c	131	--c	---	330	--c	-	-
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	110,036	131	840	---	330	840	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104	3.22E+07	131	245,487	---	330	245,487	Scaled GWP SSL	No
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	38,541	2.00E+06[d]	131	2.00E+06	---	---	2.00E+06	GWP SSL	No
100-K-95_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,020	2.00E+06[d]	131	2.00E+06	---	---	2.00E+06	GWP SSL	No
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	160	2,425	1.1	0.10	2,425	Scaled GWP SSL	No
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5	--c	160	--c	0.0084	0.050	--c	-	-
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5	--c	160	--c	---	0.10	--c	-	-
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0	--c	160	--c	0.033	0.10	--c	-	-
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560	6,000[b]	160	6,000	---	500	6,000	GWP SSL	No
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6	22,536	160	140	0.18	1.0	140	Scaled GWP SSL	No
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	160	2,425	1.1	0.10	2,425	Scaled GWP SSL	No
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--c	160	--c	0.0084	0.050	--c	-	-
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23	--c	160	--c	---	0.10	--c	-	-
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260	6,000[b]	160	6,000	---	500	6,000	GWP SSL	No
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7	22,536	160	140	0.18	1.0	140	Scaled GWP SSL	No
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9	92,105	18	5,249	---	1.0	5,249	Scaled GWP SSL	No
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0	57	18	3.2	---	2.0	3.2	Scaled GWP SSL	No
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140	389,000	18	22,169	1.1	0.10	22,169	Scaled GWP SSL	No
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8	--c	18	--c	0.0084	0.050	--c	-	-
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69	--c	18	--c	---	0.10	--c	-	-
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2	--c	18	--c	0.033	0.10	--c	-	-
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000[b]	18	6,000	---	500	6,000	GWP SSL	Yes
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995	19,048	18	1,086	---	30	1,086	Scaled GWP SSL	No
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72	--c	18	--c	0.0038	1.0	--c	-	-
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9	--c	18	--c	0.025	1.0	--c	-	-
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7	22,536	18	1,284	0.18	1.0	1,284	Scaled GWP SSL	No
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	18	5,249	---	1.0	5,249	Scaled GWP SSL	No
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	57	18	3.2	---	2.0	3.2	Scaled GWP SSL	Yes
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144	389,000	18	22,169	1.1	0.10	22,169	Scaled GWP SSL	No
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4	--c	18	--c	0.0084	0.050	--c	-	-
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82	--c	18	--c	---	0.10	--c	-	-
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12	--c	18	--c	0.033	0.10	--c	-	-
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688	6,000[b]	18	6,000	---	500	6,000	GWP SSL	No
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659	19,048	18	1,086	---	30	1,086	Scaled GWP SSL	No
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24	--c	18	--c	0.0038	1.0	--c	-	-
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0	--c	18	--c	0.025	1.0	--c	-	-
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7	22,536	18	1,284	0.18	1.0	1,284	Scaled GWP SSL	No
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0	57	18	3.2	---	2.0	3.2	Scaled GWP SSL	No
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35	--c	18	--c	---	0.10	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670	6,000[b]	18	6,000	---	500	6,000	GWP SSL	No
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8	19,048	18	1,086	---	30	1,086	Scaled GWP SSL	No
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19	22,536	18	1,284	0.18	1.0	1,284	Scaled GWP SSL	No
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0	389,000	18	22,169	1.1	0.10	22,169	Scaled GWP SSL	No
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68	--c	18	--c	---	0.10	--c	-	-
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17	--c	18	--c	0.033	0.10	--c	-	-
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250	6,000[b]	18	6,000	---	500	6,000	GWP SSL	No
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	18	1,086	---	30	1,086	Scaled GWP SSL	No
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086	--c	117	--c	0.0084	0.050	--c	-	-
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69	--c	117	--c	---	0.10	--c	-	-
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19	--c	117	--c	0.033	0.10	--c	-	-
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211	6,000[b]	117	6,000	---	500	6,000	GWP SSL	No
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	117	162	---	30	162	Scaled GWP SSL	No
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21	22,536	117	192	0.18	1.0	192	Scaled GWP SSL	No
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--c	1.0	--c	18,500	1,000	--c	-	-
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038	463,391	1.0	463,391	---	330	463,391	Scaled GWP SSL	No
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300	--c	1.0	--c	10,200	5,000	--c	-	-
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53	92,105	114	806	---	1.0	806	Scaled GWP SSL	No
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10	--c	114	--c	0.0084	0.050	--c	-	-
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5	--c	114	--c	---	0.10	--c	-	-
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26	--c	114	--c	0.033	0.10	--c	-	-
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543	6,000[b]	114	6,000	---	500	6,000	GWP SSL	No
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92	--c	114	--c	0.025	1.0	--c	-	-
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	22,271	8.40E+06	246	34,214	22,000	1,000	34,214	Scaled GWP SSL	No
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33	--c	246	--c	---	0.10	--c	-	-
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P1_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	75,395	2.66E+08	246	1.08E+06	67,800	1,000	1.08E+06	Scaled GWP SSL	No
118-K-1_P1_Shallow_3	non-Rad	Iron[b]	7439-89-6	ug/kg	3.36E+07	1.67E+08	18	9.39E+06	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500	--c	246	--c	85,100	2,500	--c	-	-
118-K-1_P1_Shallow_4	non-Rad	Antimony	7440-36-0	ug/kg	400	186,126	246	758	130	330	758	Scaled GWP SSL	No
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13	--c	246	--c	---	0.10	--c	-	-
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6	22,536	246	92	0.18	1.0	92	Scaled GWP SSL	No
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5	389,000	246	1,584	1.1	0.10	1,584	Scaled GWP SSL	No
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082	--c	246	--c	0.0084	0.050	--c	-	-
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride[b]	75-09-2	ug/kg	6.0	169	19	9.1	---	5.0	9.1	Scaled GWP SSL	No
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P1_Shallow_5	non-Rad	Nitrate[e]	14797-55-8	ug/kg	77,441	1.28E+06	19	69,135	52,000	750	69,135	Scaled GWP SSL	Yes
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073	--c	246	--c	0.025	1.0	--c	-	-
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86	22,536	246	92	0.18	1.0	92	Scaled GWP SSL	No
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0	169	1.0	169	---	5.0	169	Scaled GWP SSL	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087	--c	1.0	--c	0.025	1.0	--c	-	-
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30	92,105	246	375	---	1.0	375	Scaled GWP SSL	No
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23	--c	246	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11	19,048	246	78	---	30	78	Scaled GWP SSL	No
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24	92,105	246	375	---	1.0	375	Scaled GWP SSL	No
118-K-1_P2_Deep_3	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.3	--c	46	--c	---	2.0	--c	-	-
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69	--c	246	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43	--c	246	--c	0.033	0.10	--c	-	-
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38	19,048	246	78	---	30	78	Scaled GWP SSL	No
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--c	246	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17	--c	246	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	---	30	78	Scaled GWP SSL	No
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21	--c	246	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68	22,536	246	92	0.18	1.0	92	Scaled GWP SSL	No
118-K-1_P2_Deep_4	Rad	Tritium[e]	10028-17-8	pCi/g	5.2	1,040	59	18	---	---	18	Scaled GWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Antimony	7440-36-0	ug/kg	237	186,126	246	758	130	330	758	Scaled GWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4	14,979	246	61	---	17	61	Scaled GWP SSL	No
118-K-1_P2_Deep_5	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.7	--c	75	--c	---	2.0	--c	-	-
118-K-1_P2_Deep_5	non-Rad	Iron[b]	7439-89-6	ug/kg	3.40E+07	1.67E+08	75	2.22E+06	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12	19,048	246	78	---	30	78	Scaled GWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,110	2.00E+06[d]	246	2.00E+06	---	---	2.00E+06	GWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Total petroleum hydrocarbons - motor oil (high boiling)	TPH/OILH	ug/kg	53,100	2.00E+06[d]	246	2.00E+06	---	---	2.00E+06	GWP SSL	No

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842	--c	246	--c	85,100	2,500	--c	-	-
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8	92,105	246	375	---	1.0	375	Scaled GWP SSL	No
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10	389,000	246	1,584	1.1	0.10	1,584	Scaled GWP SSL	No
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	---	30	78	Scaled GWP SSL	No
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--c	246	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3	22,536	246	92	0.18	1.0	92	Scaled GWP SSL	No
118-K-1_P2_Deep_7	Rad	Tritium[e]	10028-17-8	pCi/g	7.5	1,040	53	20	---	---	20	Scaled GWP SSL	No
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461	--c	246	--c	85,100	2,500	--c	-	-
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28	92,105	246	375	---	1.0	375	Scaled GWP SSL	No
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_8	non-Rad	Iron[g]	7439-89-6	ug/kg	3.60E+07	1.67E+08	38	4.37E+06	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P2_Deep_8	non-Rad	Manganese[e]	7439-96-5	ug/kg	515,801	2.34E+07	38	612,222	512,000	5,000	612,222	Scaled GWP SSL	No
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Deep_8	Rad	Tritium[e]	10028-17-8	pCi/g	5.8	1,040	38	27	---	---	27	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	non-Rad	Antimony	7440-36-0	ug/kg	3,040	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3	--c	1.0	--c	---	0.10	--c	-	-
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57	19,048	1.0	19,048	---	30	19,048	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053	--c	1.0	--c	0.0038	1.0	--c	-	-
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7	--c	1.0	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40	--c	1.0	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37	--c	1.0	--c	---	0.10	--c	-	-
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9	--c	1.0	--c	0.033	0.10	--c	-	-
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14	19,048	1.0	19,048	---	30	19,048	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32	--c	1.0	--c	0.0038	1.0	--c	-	-
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--c	1.0	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1	1,040	1.0	1,040	---	---	1,040	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	1.0	92,105	---	1.0	92,105	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36	389,000	1.0	389,000	1.1	0.10	389,000	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20	--c	1.0	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4	19,048	1.0	19,048	---	30	19,048	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38	--c	1.0	--c	0.0038	1.0	--c	-	-
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2	--c	1.0	--c	0.025	1.0	--c	-	-
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12	22,536	1.0	22,536	0.18	1.0	22,536	Scaled GWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30	1,040	1.0	1,040	---	---	1,040	Scaled GWP SSL	No
118-K-1_P2_Shallow_1	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	4.5	--c	42	--c	---	2.0	--c	-	-
118-K-1_P2_Shallow_1	Rad	Tritium[e]	10028-17-8	pCi/g	6.5	1,040	42	25	---	---	25	Scaled GWP SSL	No
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_10	non-Rad	Copper	7440-50-8	ug/kg	22,649	8.40E+06	246	34,214	22,000	1,000	34,214	Scaled GWP SSL	No
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11A	non-Rad	Nitrate[e]	14797-55-8	ug/kg	121,000	1.28E+06	53	24,121	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11B	non-Rad	Nitrate[e]	14797-55-8	ug/kg	390,793	1.28E+06	59	21,538	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11B	non-Rad	Nitrite[e]	14797-65-0	ug/kg	1,000	93,824	59	1,579	---	750	1,579	Scaled GWP SSL	No
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07	--c	246	--c	1.18E+07	---	--c	-	-
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11C	non-Rad	Nitrate[e]	14797-55-8	ug/kg	169,367	1.28E+06	63	20,286	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11D	non-Rad	Nitrate[e]	14797-55-8	ug/kg	148,000	1.28E+06	66	19,264	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11E	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.1	--c	42	--c	---	2.0	--c	-	-
118-K-1_P2_Shallow_11E	non-Rad	Copper	7440-50-8	ug/kg	22,325	8.40E+06	246	34,214	22,000	1,000	34,214	Scaled GWP SSL	No
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11E	non-Rad	Nitrate[e]	14797-55-8	ug/kg	56,000	1.28E+06	42	30,677	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11F	non-Rad	Nitrate[e]	14797-55-8	ug/kg	65,100	1.28E+06	101	12,722	52,000	750	52,000	Background	Yes
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7	1,040	246	4.2	---	---	4.2	Scaled GWP SSL	No
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361	--c	246	--c	85,100	2,500	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27	--c	246	--c	0.0084	0.050	--c	-	-
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_5	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	2,100	2.00E+06[d]	246	2.00E+06	---	---	2.00E+06	GWP SSL	No
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Shallow_6	Rad	Tritium[e]	10028-17-8	pCi/g	8.3	1,040	89	12	---	---	12	Scaled GWP SSL	No
118-K-1_P2_Shallow_7	non-Rad	Antimony[e]	7440-36-0	ug/kg	16,300	186,126	72	2,595	130	330	2,595	Scaled GWP SSL	Yes
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_7	non-Rad	Copper	7440-50-8	ug/kg	22,500	8.40E+06	246	34,214	22,000	1,000	34,214	Scaled GWP SSL	No
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76	1.43E+06	246	5,826	---	330,000	330,000	RDL	No
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142	--c	246	--c	10,200	5,000	--c	-	-
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_7	non-Rad	Zinc	7440-66-6	ug/kg	77,182	2.66E+08	246	1.08E+06	67,800	1,000	1.08E+06	Scaled GWP SSL	No
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4	1,040	246	4.2	---	---	4.2	Scaled GWP SSL	No
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053	--c	246	--c	---	0.10	--c	-	-
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21	79,331	246	323	13	200	323	Scaled GWP SSL	No
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641	953,947	246	3,884	470	2,000	3,884	Scaled GWP SSL	No
118-K-1_P2_Shallow_9	non-Rad	Nitrate[e]	14797-55-8	ug/kg	231,145	1.28E+06	22	58,249	52,000	750	58,249	Scaled GWP SSL	Yes
118-K-1_P2_Shallow_9	non-Rad	Nitrite[e]	14797-65-0	ug/kg	1,000	93,824	22	4,272	---	750	4,272	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Antimony	7440-36-0	ug/kg	369	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	1.67E+08	1.0	1.67E+08	3.26E+07	---	1.67E+08	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500	6.10E+06	1.0	6.10E+06	19,100	4,000	6.10E+06	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100	--c	1.0	--c	85,100	2,500	--c	-	-
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	1.0	57	---	2.0	57	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300	--c	1.0	--c	18,500	1,000	--c	-	-
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400	6.10E+06	1.0	6.10E+06	19,100	4,000	6.10E+06	Scaled GWP SSL	No
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12	1,040	1.0	1,040	---	---	1,040	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108	6,000[b]	6.2	6,000	---	500	6,000	GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893	--c	6.2	--c	10,200	5,000	--c	-	-
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559	953,947	6.2	154,465	470	2,000	154,465	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120	139,329	6.2	22,560	780	1,000	22,560	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645	2.07E+08	6.2	3.35E+07	---	1,000	3.35E+07	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568	3.89E+08	6.2	6.30E+07	---	10,000	6.30E+07	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100	5.38E+06	1.0	5.38E+06	3,890	2,000	5.38E+06	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610	953,947	1.0	953,947	470	2,000	953,947	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900	2.07E+08	1.0	2.07E+08	---	1,000	2.07E+08	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600	3.89E+08	1.0	3.89E+08	---	10,000	3.89E+08	Scaled GWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600	--c	1.0	--c	85,100	2,500	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670	6.73E+07	1.0	6.73E+07	---	600	6.73E+07	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900	--c	1.0	--c	---	15	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100	--c	1.0	--c	---	15	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100	--c	1.0	--c	---	15	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870	1.31E+06	1.0	1.31E+06	---	330	1.31E+06	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200	--c	1.0	--c	---	30	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480	6,000[b]	1.0	6,000	---	500	6,000	GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900	--c	1.0	--c	---	330	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800	--c	1.0	--c	10,200	5,000	--c	-	-
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Total petroleum hydrocarbons	TPH	ug/kg	14,400	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18	2.62E+06	74	35,539	---	330	35,539	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10	206,903	74	2,805	---	20	2,805	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11	6.73E+07	74	912,373	---	600	912,373	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	500	186,126	74	2,524	130	330	2,524	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27	7.67E+06	74	104,020	---	15	104,020	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28	--c	74	--c	---	15	--c	-	-
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33	--c	74	--c	---	15	--c	-	-
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4	--c	74	--c	---	15	--c	-	-

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{ug}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14	3.89E+08	74	5.27E+06	---	100	5.27E+06	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	8.40E+06	74	113,943	22,000	1,000	113,943	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16	--c	74	--c	---	30	--c	-	-
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41	2.30E+07	74	311,190	---	330	311,190	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14	2.83E+06	74	38,328	---	330	38,328	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18	--c	74	--c	---	330	--c	-	-
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	74	1,076	13	200	1,076	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	110,036	74	1,492	---	330	1,492	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	3.22E+07	74	436,089	---	330	436,089	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973	139,329	74	1,889	780	1,000	1,889	Scaled GWP SSL	No
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	3,425	2.00E+06[d]	74	2.00E+06	---	---	2.00E+06	GWP SSL	No
128-K-2_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	4,568	2.00E+06[d]	74	2.00E+06	---	---	2.00E+06	GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10	206,903	1.0	206,903	---	20	206,903	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	410	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4	14,979	1.0	14,979	---	17	14,979	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50	--c	1.0	--c	---	17	--c	-	-
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5	--c	1.0	--c	---	15	--c	-	-
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--c	1.0	--c	---	15	--c	-	-
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8	--c	1.0	--c	---	15	--c	-	-
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300	--c	1.0	--c	10,200	5,000	--c	-	-
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	560,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	1.20E+06	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000	2.66E+08	1.0	2.66E+08	67,800	1,000	2.66E+08	Scaled GWP SSL	No
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040	92,105	4.9	18,779	---	1.0	18,779	Scaled GWP SSL	No
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	57	4.9	12	---	2.0	12	Scaled GWP SSL	Yes
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041	--c	4.9	--c	0.025	1.0	--c	-	-
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500	2.07E+08	4.9	4.21E+07	---	1,000	4.21E+07	Scaled GWP SSL	No
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494	3.89E+08	4.9	7.93E+07	---	10,000	7.93E+07	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	14,979	8.7	1,719	---	17	1,719	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200	--c	8.7	--c	18,500	1,000	--c	-	-
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100	--c	8.7	--c	10,200	5,000	--c	-	-
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59	79,331	8.7	9,104	13	200	9,104	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550	953,947	8.7	109,471	470	2,000	109,471	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886	139,329	8.7	15,989	780	1,000	15,989	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500	2.07E+08	8.7	2.37E+07	---	1,000	2.37E+07	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549	3.89E+08	8.7	4.46E+07	---	10,000	4.46E+07	Scaled GWP SSL	No
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900	2.66E+08	8.7	3.05E+07	67,800	1,000	3.05E+07	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	520	186,126	197	944	130	330	944	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67	--c	197	--c	---	15	--c	-	-
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103	1.31E+06	197	6,652	---	330	6,652	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46	3.89E+08	197	1.97E+06	---	100	1.97E+06	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	8.40E+06	197	42,631	22,000	1,000	42,631	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	79,331	197	402	13	200	402	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	6.10E+06	197	30,936	19,100	4,000	30,936	Scaled GWP SSL	Yes
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87	3.22E+07	197	163,158	---	330	163,158	Scaled GWP SSL	No
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985	139,329	197	707	780	1,000	1,000	RDL	No
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	22,077	2.00E+06[d]	197	2.00E+06	---	---	2.00E+06	GWP SSL	No
600-29_Shallow	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	31,433	2.00E+06[d]	197	2.00E+06	---	---	2.00E+06	GWP SSL	No
600-29_Shallow_Focused	non-Rad	Antimony	7440-36-0	ug/kg	450	186,126	1.0	186,126	130	330	186,126	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72	7.67E+06	1.0	7.67E+06	---	15	7.67E+06	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--c	1.0	--c	---	15	--c	-	-
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--c	1.0	--c	---	15	--c	-	-
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120	1.31E+06	1.0	1.31E+06	---	330	1.31E+06	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90	3.89E+08	1.0	3.89E+08	---	100	3.89E+08	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900	8.40E+06	1.0	8.40E+06	22,000	1,000	8.40E+06	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240	1.43E+06	1.0	1.43E+06	---	330,000	1.43E+06	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100	2.30E+07	1.0	2.30E+07	---	330	2.30E+07	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96	--c	1.0	--c	---	330	--c	-	-
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700	--c	1.0	--c	10,200	5,000	--c	-	-
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	79,331	1.0	79,331	13	200	79,331	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96	3.22E+07	1.0	3.22E+07	---	330	3.22E+07	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940	139,329	1.0	139,329	780	1,000	139,329	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180	385,420	1.0	385,420	167	200	385,420	Scaled GWP SSL	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range	TPHDIESEL	ug/kg	20,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No
600-29_Shallow_Focused	non-Rad	Total petroleum hydrocarbons - diesel range extended to C36	TPHDIESELEXT	ug/kg	39,000	2.00E+06[d]	1.0	2.00E+06	---	---	2.00E+06	GWP SSL	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

b. The soil screening level for hexavalent chromium is set to a maximum value of 6,000 µg/kg because the kd value used in the model was derived from experiments with soil concentration less than 6,000 µg/kg.

Table 7-4. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?

c. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

d. The soil screening level for Total Petroleum Hydrocarbons is a default screening level obtained from WAC 173-340-900, Table 747-5, "Residual Saturation Screening Levels for TPH."

e. Waste site dimension was measured using the maximum flowline length of respective area delineated in Figure 7 of CVP-2013-00002 Rev.1

f. Carbon-14 in this waste area is represented by Carbon-14 in graphite form (Kd = 200 mL/g)

-- = Not applicable or no value

ECF-Hanford-13-0012, Rev. 0, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report*.

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-102_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	149	6000[b]	15	6,000	---	500	6,000	SWP SSL	No
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	476	15	33	13	200	200	RDL	Yes
100-K-102_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	593	--c	15	--c	470	2,000	--c	--	--
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	13,933	15	954	780	1,000	1,000	RDL	Yes
100-K-102_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	32,455	--c	15	--c	---	1,000	--c	--	--
100-K-102_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	689	--c	15	--c	---	10,000	--c	--	--
100-K-102_Shallow_1	non-Rad	Zinc	7440-66-6	ug/kg	117,913	5.04E+06	15	345,085	67,800	1,000	345,085	Scaled SWP SSL	No
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	2,712	15	186	563	500	563	Background	Yes
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	476	15	33	13	200	200	RDL	Yes
100-K-102_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	29,284	--c	15	--c	---	1,000	--c	--	--
100-K-102_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	478	--c	15	--c	---	10,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	4,610	--c	1.0	--c	2,810	5,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Manganese	7439-96-5	ug/kg	648,000	--c	1.0	--c	512,000	5,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	820	--c	1.0	--c	470	2,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	38,200	--c	1.0	--c	---	1,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	716	--c	1.0	--c	---	10,000	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	86,700	--c	1.0	--c	85,100	2,500	--c	--	--
100-K-102_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	78,400	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
100-K-105_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	290	6000[b]	11	6,000	---	500	6,000	SWP SSL	No
100-K-105_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	26,000	--c	11	--c	---	1,000	--c	--	--
100-K-105_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	660	--c	11	--c	---	10,000	--c	--	--
100-K-105_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6000[b]	11	6,000	---	500	6,000	SWP SSL	No
100-K-105_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	23,000	--c	11	--c	---	1,000	--c	--	--
100-K-105_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	570	--c	11	--c	---	10,000	--c	--	--
100-K-105_Shallow_3	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	160	6000[b]	11	6,000	---	500	6,000	SWP SSL	No
100-K-105_Shallow_3	non-Rad	Strontium	7440-24-6	ug/kg	29,000	--c	11	--c	---	1,000	--c	--	--
100-K-105_Shallow_3	non-Rad	Tin	7440-31-5	ug/kg	590	--c	11	--c	---	10,000	--c	--	--
100-K-106_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--c	4.8	--c	---	1,000	--c	--	--
100-K-106_Shallow	non-Rad	Tin	7440-31-5	ug/kg	332	--c	4.8	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	21,900	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	370	--c	1.0	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_2	non-Rad	Molybdenum	7439-98-7	ug/kg	490	--c	1.0	--c	470	2,000	--c	--	--
100-K-106_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	20,100	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	478	--c	1.0	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	499	--c	1.0	--c	470	2,000	--c	--	--
100-K-106_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	25,300	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	547	--c	1.0	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	18,900	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	402	--c	1.0	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_5	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_5	non-Rad	Tin	7440-31-5	ug/kg	481	--c	1.0	--c	---	10,000	--c	--	--
100-K-106_Shallow_Focused_6	non-Rad	Strontium	7440-24-6	ug/kg	24,800	--c	1.0	--c	---	1,000	--c	--	--
100-K-106_Shallow_Focused_6	non-Rad	Tin	7440-31-5	ug/kg	465	--c	1.0	--c	---	10,000	--c	--	--
100-K-109_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	76	476	21	22	13	200	200	RDL	No
100-K-109_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	480	--c	21	--c	470	2,000	--c	--	--
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	13,933	21	650	780	1,000	1,000	RDL	Yes
100-K-109_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,362	--c	21	--c	---	1,000	--c	--	--
100-K-109_Shallow	non-Rad	Tin	7440-31-5	ug/kg	446	--c	21	--c	---	10,000	--c	--	--
100-K-109_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	167	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	14	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	480	--c	1.0	--c	470	2,000	--c	--	--
100-K-109_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,900	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-109_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	21,700	--c	1.0	--c	---	1,000	--c	--	--
100-K-109_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	970	--c	1.0	--c	---	10,000	--c	--	--
100-K-110_Shallow	Rad	Europium-155	14391-16-3	pCi/g	0.034	--d	134	--d	0.054	0.10	--d	--	--
100-K-110_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	199	6000[b]	134	6,000	---	500	6,000	SWP SSL	No
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	1.49E+07	134	111,089	3.26E+07	---	3.26E+07	Background	Yes
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	476	134	3.5	13	200	200	RDL	Yes
100-K-110_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	587	--c	134	--c	470	2,000	--c	--	--
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	13,933	134	104	780	1,000	1,000	RDL	Yes
100-K-110_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,258	--c	134	--c	---	1,000	--c	--	--
100-K-110_Shallow	non-Rad	Thallium	7440-28-0	ug/kg	142	--c	134	--c	185	---	--c	--	--
100-K-110_Shallow	non-Rad	Tin	7440-31-5	ug/kg	994	--c	134	--c	---	10,000	--c	--	--
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	5.04E+06	134	37,541	67,800	1,000	67,800	Background	Yes
100-K-110_Shallow_focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,870	2,712	1.0	2,712	563	500	2,712	Scaled SWP SSL	No
100-K-110_Shallow_focused	non-Rad	Mercury	7439-97-6	ug/kg	110	476	1.0	476	13	200	476	Scaled SWP SSL	No

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-14, 126-KE-2_Shallow	non-Rad	Beryllium	7440-41-7	ug/kg	1,633	--c	11	--c	1,510	500	--c	--	--
100-K-14, 126-KE-2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	10,604	--c	11	--c	3,890	2,000	--c	--	--
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	476	11	44	13	200	200	RDL	Yes
100-K-14, 126-KE-2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,222	--c	11	--c	470	2,000	--c	--	--
100-K-14, 126-KE-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,141	13,933	11	1,289	780	1,000	1,289	Scaled SWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	958	12,526	11	1,159	167	200	1,159	Scaled SWP SSL	No
100-K-14, 126-KE-2_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	99,067	--c	11	--c	85,100	2,500	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	233	6000[b]	7.0	6,000	---	500	6,000	SWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	68	476	7.0	68	13	200	200	RDL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	622	--c	7.0	--c	470	2,000	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,057	13,933	7.0	1,995	780	1,000	1,995	Scaled SWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	34,319	--c	7.0	--c	---	1,000	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	626	--c	7.0	--c	---	10,000	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	87,520	--c	7.0	--c	85,100	2,500	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	764	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	290	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	510	--c	1.0	--c	470	2,000	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,700	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	20,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-18, 100-K-19, 100-K-79:1, 100-K-79:2, 100-K-97, 120-KW-5, 120-KW-7_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	480	--c	1.0	--c	---	10,000	--c	--	--
100-K-29_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	98	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-29_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	24,700	--d	1.0	--d	18,500	1,000	--d	--	--
100-K-29_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	3,200	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	63,200	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	50	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Acenaphthene	83-32-9	ug/kg	41	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.025	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Anthracene	120-12-7	ug/kg	1.4	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1016	12674-11-2	ug/kg	5.7	2,788	1.0	2,788	---	17	2,788	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Aroclor-1260	11096-82-5	ug/kg	17	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	57	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	50	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	67	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.6	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Chrysene	218-01-9	ug/kg	94	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	5.6	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluoranthene	206-44-0	ug/kg	95	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Fluorene	86-73-7	ug/kg	3.0	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.1	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Mercury	7439-97-6	ug/kg	28	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Naphthalene	91-20-3	ug/kg	25	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Pyrene	129-00-0	ug/kg	109	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Strontium	7440-24-6	ug/kg	34,076	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.72	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep	non-Rad	Tin	7440-31-5	ug/kg	664	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Acenaphthene	83-32-9	ug/kg	880	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Anthracene	120-12-7	ug/kg	71	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Aroclor-1260	11096-82-5	ug/kg	200	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	230	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	160	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	220	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	93	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Chrysene	218-01-9	ug/kg	280	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	130	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluoranthene	206-44-0	ug/kg	480	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Fluorene	86-73-7	ug/kg	59	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	120	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Naphthalene	91-20-3	ug/kg	480	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Pyrene	129-00-0	ug/kg	390	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	23,300	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	6.2	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	808	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Americium-241	14596-10-2	pCi/g	0.18	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Aroclor-1260	11096-82-5	ug/kg	53	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	22	--c	1.0	--c	---	15	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	18	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	25	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Chrysene	218-01-9	ug/kg	29	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Fluoranthene	206-44-0	ug/kg	48	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	14	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--d	1.0	--d	0.0038	1.0	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.14	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Pyrene	129-00-0	ug/kg	46	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Strontium	7440-24-6	ug/kg	24,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	Rad	Strontium-90	10098-97-2	pCi/g	5.4	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Deep_P4P5	non-Rad	Tin	7440-31-5	ug/kg	372	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	160	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.031	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	2.1	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	17	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	24	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	49	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	49	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	73	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	32	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	75	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	42	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.15	--d	1.0	--d	---	0.10	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	27	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	50	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	733	--c	1.0	--c	470	2,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	39	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.027	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	66	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,056	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow	non-Rad	Tin	7440-31-5	ug/kg	503	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Acenaphthene	83-32-9	ug/kg	49	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	11	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	8.1	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.6	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	18	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.3	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Naphthalene	91-20-3	ug/kg	23	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	24,000	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	345	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.021	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.0	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	4.5	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	31,600	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	446	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Strontium	7440-24-6	ug/kg	25,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_4	non-Rad	Tin	7440-31-5	ug/kg	404	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Acenaphthene	83-32-9	ug/kg	64	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	13	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	14	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	19	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	8.1	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Chrysene	218-01-9	ug/kg	21	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluoranthene	206-44-0	ug/kg	33	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.7	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Naphthalene	91-20-3	ug/kg	43	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Pyrene	129-00-0	ug/kg	23	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Strontium	7440-24-6	ug/kg	30,700	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P10	non-Rad	Tin	7440-31-5	ug/kg	341	--c	1.0	--c	---	10,000	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Acenaphthene	83-32-9	ug/kg	210	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	67	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	62	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	88	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	38	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Chrysene	218-01-9	ug/kg	81	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	51	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Fluoranthene	206-44-0	ug/kg	81	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	40	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Pyrene	129-00-0	ug/kg	77	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P11	non-Rad	Tin	7440-31-5	ug/kg	398	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Acenaphthene	83-32-9	ug/kg	550	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Anthracene	120-12-7	ug/kg	12	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	99	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	110	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	150	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	63	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Chrysene	218-01-9	ug/kg	170	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	35	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Fluoranthene	206-44-0	ug/kg	210	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	73	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Lead	7439-92-1	ug/kg	42,200	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Molybdenum	7439-98-7	ug/kg	483	--c	1.0	--c	470	2,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Pyrene	129-00-0	ug/kg	130	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Strontium	7440-24-6	ug/kg	30,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P16	non-Rad	Tin	7440-31-5	ug/kg	983	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Acenaphthene	83-32-9	ug/kg	310	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	65	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	31	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	57	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	25	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Chrysene	218-01-9	ug/kg	87	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	22	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Pyrene	129-00-0	ug/kg	100	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Strontium	7440-24-6	ug/kg	31,200	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P17	non-Rad	Tin	7440-31-5	ug/kg	412	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Acenaphthene	83-32-9	ug/kg	27	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	Rad	Americium-241	14596-10-2	pCi/g	0.022	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	5.3	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2.4	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	5.6	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	1.9	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Chrysene	218-01-9	ug/kg	9.3	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Fluoranthene	206-44-0	ug/kg	16	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1.4	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Pyrene	129-00-0	ug/kg	9.1	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Strontium	7440-24-6	ug/kg	30,000	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P18	non-Rad	Tin	7440-31-5	ug/kg	376	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	1.1	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Fluoranthene	206-44-0	ug/kg	5.2	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Lead	7439-92-1	ug/kg	24,100	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Pyrene	129-00-0	ug/kg	2.8	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Strontium	7440-24-6	ug/kg	29,900	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P19	non-Rad	Tin	7440-31-5	ug/kg	399	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Acenaphthene	83-32-9	ug/kg	1,400	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	280	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	96	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Boron	7440-42-8	ug/kg	4,990	--c	1.0	--c	3,890	2,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Chrysene	218-01-9	ug/kg	350	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	68	--c	1.0	--c	---	30	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluoranthene	206-44-0	ug/kg	880	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Fluorene	86-73-7	ug/kg	100	--c	1.0	--c	---	330	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	63	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Pyrene	129-00-0	ug/kg	590	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Strontium	7440-24-6	ug/kg	26,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P20	non-Rad	Tin	7440-31-5	ug/kg	403	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Acenaphthene	83-32-9	ug/kg	31	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Americium-241	14596-10-2	pCi/g	0.070	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Anthracene	120-12-7	ug/kg	4.6	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.9	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	7.5	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	11	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4.5	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Chrysene	218-01-9	ug/kg	1,900	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluoranthene	206-44-0	ug/kg	24	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Fluorene	86-73-7	ug/kg	4.1	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	5.6	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Pyrene	129-00-0	ug/kg	59	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Strontium	7440-24-6	ug/kg	32,000	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	Rad	Strontium-90	10098-97-2	pCi/g	1.5	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P21	non-Rad	Tin	7440-31-5	ug/kg	431	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Fluoranthene	206-44-0	ug/kg	5.7	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Strontium	7440-24-6	ug/kg	21,600	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P25	non-Rad	Tin	7440-31-5	ug/kg	283	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Acenaphthene	83-32-9	ug/kg	410	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	Rad	Americium-241	14596-10-2	pCi/g	0.030	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Anthracene	120-12-7	ug/kg	29	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	150	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	71	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	120	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	56	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Chrysene	218-01-9	ug/kg	200	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluoranthene	206-44-0	ug/kg	330	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Fluorene	86-73-7	ug/kg	4.4	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	32	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Naphthalene	91-20-3	ug/kg	280	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Pyrene	129-00-0	ug/kg	220	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Strontium	7440-24-6	ug/kg	29,800	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Focused_P9	non-Rad	Tin	7440-31-5	ug/kg	284	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Acenaphthene	83-32-9	ug/kg	58	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Aroclor-1254	11097-69-1	ug/kg	28	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	12	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	12	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	6.9	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Chrysene	218-01-9	ug/kg	18	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Fluorene	86-73-7	ug/kg	4.5	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	7.4	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Naphthalene	91-20-3	ug/kg	29	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Pyrene	129-00-0	ug/kg	23	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Strontium	7440-24-6	ug/kg	23,200	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_P3P6	non-Rad	Tin	7440-31-5	ug/kg	318	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Aroclor-1260	11096-82-5	ug/kg	250	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	36	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	23	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	35	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	15	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Chrysene	218-01-9	ug/kg	41	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Fluoranthene	206-44-0	ug/kg	89	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	24	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Molybdenum	7439-98-7	ug/kg	625	--c	1.0	--c	470	2,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Pyrene	129-00-0	ug/kg	66	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Strontium	7440-24-6	ug/kg	34,900	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-36, 100-K-79:7_Shallow_Sewer	non-Rad	Tin	7440-31-5	ug/kg	572	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.36	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	48	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--d	1.0	--d	0.0038	1.0	--d	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.58	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Strontium	7440-24-6	ug/kg	26,400	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	16	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Deep_Focused_1	non-Rad	Tin	7440-31-5	ug/kg	410	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.092	92,105	3.0	30,347	---	1.0	30,347	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	3.0	128,170	1.1	0.10	128,170	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--d	3.0	--d	0.0084	0.050	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.28	--d	3.0	--d	---	0.10	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.026	--d	3.0	--d	0.0038	1.0	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.16	--d	3.0	--d	0.025	1.0	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,952	--c	3.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.89	22,536	3.0	7,425	0.18	1.0	7,425	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow	non-Rad	Tin	7440-31-5	ug/kg	456	--c	3.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Anthracene	120-12-7	ug/kg	2.2	--c	1.0	--c	---	600	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Aroclor-1260	11096-82-5	ug/kg	22	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	7.3	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	6.4	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	7.6	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	2.9	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Chrysene	218-01-9	ug/kg	12	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Fluoranthene	206-44-0	ug/kg	18	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	3.0	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Pyrene	129-00-0	ug/kg	19	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Selenium	7782-49-2	ug/kg	1,800	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Strontium	7440-24-6	ug/kg	25,400	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_2	non-Rad	Tin	7440-31-5	ug/kg	590	--c	1.0	--c	---	10,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1254	11097-69-1	ug/kg	21	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Aroclor-1260	11096-82-5	ug/kg	12	--d	1.0	--d	---	17	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	50	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	48	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	47	--c	1.0	--c	---	15	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Cesium-137	10045-97-3	pCi/g	1.6	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Chrysene	218-01-9	ug/kg	73	--c	1.0	--c	---	100	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Europium-152	14683-23-9	pCi/g	0.23	--d	1.0	--d	---	0.10	--d	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Fluoranthene	206-44-0	ug/kg	150	--c	1.0	--c	---	330	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Selenium	7782-49-2	ug/kg	1,600	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Strontium	7440-24-6	ug/kg	27,800	--c	1.0	--c	---	1,000	--c	--	--
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	Rad	Strontium-90	10098-97-2	pCi/g	0.96	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3, 100-K-68, 100-K-69, 100-K-70, 100-K-71_Shallow_Focused_3	non-Rad	Tin	7440-31-5	ug/kg	570	--c	1.0	--c	---	10,000	--c	--	--
100-K-3_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.035	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
100-K-3_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.44	--d	1.0	--d	---	0.10	--d	--	--
100-K-3_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.047	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	34,100	--c	1.0	--c	---	1,000	--c	--	--
100-K-3_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	636	--c	1.0	--c	---	10,000	--c	--	--
100-K-3_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.054	--d	1.0	--d	0.025	1.0	--d	--	--
100-K-3_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--c	1.0	--c	---	1,000	--c	--	--
100-K-3_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	0.67	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-3_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	481	--c	1.0	--c	---	10,000	--c	--	--
100-K-30_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	640	2,712	1.0	2,712	563	500	2,712	Scaled SWP SSL	No
100-K-30_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	702	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-30_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	36,000	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	476	1.0	476	13	200	476	Scaled SWP SSL	Yes
100-K-31_Shallow_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	--c	1.0	--c	132,000	2,000	--c	--	--
100-K-31_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	750	2,712	1.0	2,712	563	500	2,712	Scaled SWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	220	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-31_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	43,400	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	476	1.0	476	13	200	476	Scaled SWP SSL	Yes
100-K-32_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	230	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-32_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	42,800	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	476	1.0	476	13	200	476	Scaled SWP SSL	Yes
100-K-33_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	1,000	2,712	1.0	2,712	563	500	2,712	Scaled SWP SSL	No
100-K-33_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	22,900	--d	1.0	--d	18,500	1,000	--d	--	--
100-K-33_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,400	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-33_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	27,800	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	476	1.0	476	13	200	476	Scaled SWP SSL	Yes

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	129,998	15	8,900	22,000	1,000	22,000	Background	Yes
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	124	6000[b]	15	6,000	---	500	6,000	SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	24,110	--d	15	--d	10,200	5,000	--d	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	189	476	15	33	13	200	200	RDL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	967	--c	15	--c	470	2,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	21,176	3.17E+06	15	217,108	19,100	4,000	217,108	Scaled SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	33,700	--c	15	--c	---	1,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	1,620	--c	15	--c	---	10,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Cadmium	7440-43-9	ug/kg	950	2,712	1.0	2,712	563	500	2,712	Scaled SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	30,500	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Fluoride	16984-48-8	ug/kg	7,700	--c	1.0	--c	2,810	5,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	51,100	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	620	--c	1.0	--c	470	2,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,200	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	60,400	--c	1.0	--c	---	1,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	2,800	--c	1.0	--c	---	10,000	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	89,200	--c	1.0	--c	85,100	2,500	--c	--	--
100-K-34, 100-K-102, 1607-K3_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	112,000	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
100-K-34_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	641	--c	2.9	--c	470	2,000	--c	--	--
100-K-34_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	913	13,933	2.9	4,762	780	1,000	4,762	Scaled SWP SSL	No
100-K-34_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	25,600	--c	2.9	--c	---	1,000	--c	--	--
100-K-34_Shallow	non-Rad	Tin	7440-31-5	ug/kg	480	--c	2.9	--c	---	10,000	--c	--	--
100-K-34_Shallow	non-Rad	Vanadium	7440-62-2	ug/kg	94,400	--c	2.9	--c	85,100	2,500	--c	--	--
100-K-36_Deep_Focused	non-Rad	Barium	7440-39-3	ug/kg	169,000	--c	1.0	--c	132,000	2,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Cobalt	7440-48-4	ug/kg	17,900	--c	1.0	--c	15,700	2,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Copper	7440-50-8	ug/kg	32,500	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
100-K-36_Deep_Focused	non-Rad	Lead	7439-92-1	ug/kg	13,500	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-36_Deep_Focused	non-Rad	Manganese	7439-96-5	ug/kg	672,000	--c	1.0	--c	512,000	5,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Mercury	7439-97-6	ug/kg	27	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-36_Deep_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	852	--c	1.0	--c	470	2,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Nickel	7440-02-0	ug/kg	20,000	3.17E+06	1.0	3.17E+06	19,100	4,000	3.17E+06	Scaled SWP SSL	No
100-K-36_Deep_Focused	non-Rad	Strontium	7440-24-6	ug/kg	83,200	--c	1.0	--c	---	1,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Tin	7440-31-5	ug/kg	1,210	--c	1.0	--c	---	10,000	--c	--	--
100-K-36_Deep_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	102,000	--c	1.0	--c	85,100	2,500	--c	--	--
100-K-36_Deep_Focused	non-Rad	Zinc	7440-66-6	ug/kg	81,000	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
100-K-36_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	32,500	--c	1.00	--c	---	1,000	--c	--	--
100-K-36_Shallow	non-Rad	Tin	7440-31-5	ug/kg	452	--c	1.00	--c	---	10,000	--c	--	--
100-K-4_Deep	non-Rad	Barium	7440-39-3	ug/kg	175,000	--c	37	--c	132,000	2,000	--c	--	--
100-K-4_Deep	non-Rad	Boron	7440-42-8	ug/kg	17,700	--c	37	--c	3,890	2,000	--c	--	--
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	13,933	37	375	780	1,000	1,000	RDL	Yes
100-K-4_Deep	non-Rad	Strontium	7440-24-6	ug/kg	21,010	--c	37	--c	---	1,000	--c	--	--
100-K-4_Deep	non-Rad	Tin	7440-31-5	ug/kg	430	--c	37	--c	---	10,000	--c	--	--
100-K-4_Shallow	non-Rad	Boron	7440-42-8	ug/kg	16,800	--c	37	--c	3,890	2,000	--c	--	--
100-K-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	13,325	--d	37	--d	10,200	5,000	--d	--	--
100-K-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	483	--c	37	--c	470	2,000	--c	--	--
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	13,933	37	375	780	1,000	1,000	RDL	Yes
100-K-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	43,529	--c	37	--c	---	1,000	--c	--	--
100-K-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	516	--c	37	--c	---	10,000	--c	--	--
100-K-46_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.43	92,105	1.8	52,415	---	1.0	52,415	Scaled SWP SSL	No
100-K-46_Deep	Rad	Carbon-14	14762-75-5	pCi/g	7.6	57	1.8	32	---	2.0	32	Scaled SWP SSL	No
100-K-46_Deep	Rad	Cesium-137	10045-97-3	pCi/g	6.2	389,000	1.8	221,371	1.1	0.10	221,371	Scaled SWP SSL	No
100-K-46_Deep	non-Rad	Chromium	7440-47-3	ug/kg	21,500	--d	1.8	--d	18,500	1,000	--d	--	--
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	129,998	1.8	73,979	22,000	1,000	73,979	Scaled SWP SSL	Yes
100-K-46_Deep	non-Rad	Molybdenum	7439-98-7	ug/kg	1,770	--c	1.8	--c	470	2,000	--c	--	--
100-K-46_Deep	non-Rad	Nickel	7440-02-0	ug/kg	28,300	3.17E+06	1.8	1.80E+06	19,100	4,000	1.80E+06	Scaled SWP SSL	No
100-K-46_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.061	--d	1.8	--d	0.0038	1.0	--d	--	--
100-K-46_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.33	--d	1.8	--d	0.025	1.0	--d	--	--
100-K-46_Deep	non-Rad	Strontium	7440-24-6	ug/kg	38,000	--c	1.8	--c	---	1,000	--c	--	--
100-K-46_Deep	Rad	Strontium-90	10098-97-2	pCi/g	0.99	22,536	1.8	12,825	0.18	1.0	12,825	Scaled SWP SSL	No
100-K-46_Deep	non-Rad	Tin	7440-31-5	ug/kg	9,720	--c	1.8	--c	---	10,000	--c	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	3.0	30,347	---	1.0	30,347	Scaled SWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.050	--d	3.0	--d	0.0084	0.050	--d	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.68	--d	3.0	--d	---	0.10	--d	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-238	13981-16-3	pCi/g	0.035	--d	3.0	--d	0.0038	1.0	--d	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.23	--d	3.0	--d	0.025	1.0	--d	--	--
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Strontium	7440-24-6	ug/kg	23,600	--c	3.0	--c	---	1,000	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	Rad	Strontium-90	10098-97-2	pCi/g	2.8	22,536	3.0	7,425	0.18	1.0	7,425	Scaled SWP SSL	No
100-K-47, 100-K-69, 100-K-70, 100-K-71_Deep	non-Rad	Tin	7440-31-5	ug/kg	400	--c	3.0	--c	---	10,000	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	7.8	--c	8.4	--c	---	330	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	16	--c	8.4	--c	---	600	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.2	4,766	8.4	565	---	17	565	Scaled SWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Aroclor-1260	11096-82-5	ug/kg	2.4	--d	8.4	--d	---	17	--d	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	169	--c	8.4	--c	---	15	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	107	--c	8.4	--c	---	15	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	181	--c	8.4	--c	---	15	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	27	--c	8.4	--c	---	15	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Boron	7440-42-8	ug/kg	9,011	--c	8.4	--c	3,890	2,000	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	208	--c	8.4	--c	---	100	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	30	--c	8.4	--c	---	30	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	225	--c	8.4	--c	---	330	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.3	--c	8.4	--c	---	330	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	383	6000[b]	8.4	6,000	---	500	6,000	SWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	70	--c	8.4	--c	---	330	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	126	476	8.4	56	13	200	200	RDL	No
100-K-50, 1607-K2_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	565	--c	8.4	--c	470	2,000	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	223	--c	8.4	--c	---	330	--c	--	--
100-K-50, 1607-K2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	990	13,933	8.4	1,651	780	1,000	1,651	Scaled SWP SSL	No
100-K-50, 1607-K2_Shallow	non-Rad	Silver	7440-22-4	ug/kg	785	12,526	8.4	1,484	167	200	1,484	Scaled SWP SSL	No
100-K-53_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
100-K-53_Shallow	non-Rad	Copper	7440-50-8	ug/kg	28,208	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
100-K-53_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	102	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-53_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	58	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-53_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	869	--c	1.0	--c	470	2,000	--c	--	--
100-K-53_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	29,344	--c	1.0	--c	---	1,000	--c	--	--
100-K-53_Shallow	non-Rad	Tin	7440-31-5	ug/kg	509	--c	1.0	--c	---	10,000	--c	--	--
100-K-55:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	3.9	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
100-K-55:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	0.59	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-55:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	0.78	--d	1.0	--d	---	0.10	--d	--	--
100-K-55:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	0.29	--d	1.0	--d	0.033	0.10	--d	--	--
100-K-55:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.19	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-55:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.0	--d	1.0	--d	---	0.10	--d	--	--
100-K-55:1_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.23	--d	1.0	--d	0.033	0.10	--d	--	--
100-K-55:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.11	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-55:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	1.3	--d	1.0	--d	---	0.10	--d	--	--
100-K-55:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.19	--d	1.0	--d	0.033	0.10	--d	--	--
100-K-55:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.37	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-56:1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	26	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
100-K-56:1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	1.1	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-56:1_Deep	Rad	Europium-152	14683-23-9	pCi/g	31	--d	1.0	--d	---	0.10	--d	--	--
100-K-56:1_Deep	Rad	Europium-154	15585-10-1	pCi/g	2.0	--d	1.0	--d	0.033	0.10	--d	--	--
100-K-56:1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.14	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-56:1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	3.3	--d	1.0	--d	---	0.10	--d	--	--
100-K-56:1_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.15	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-56:1_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	3.1	--d	1.0	--d	---	0.10	--d	--	--
100-K-56:1_Shallow_Focused	Rad	Europium-154	15585-10-1	pCi/g	0.33	--d	1.0	--d	0.033	0.10	--d	--	--
100-K-56:1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	937	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-56:1_Shallow_Focused	Rad	Strontium-90	10098-97-2	pCi/g	0.50	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Americium-241	14596-10-2	pCi/g	0.23	92,105	14	6,702	---	1.0	6,702	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	57	14	4.1	---	2.0	4.1	Scaled SWP SSL	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Cesium-137	10045-97-3	pCi/g	1.7	389,000	14	28,303	1.1	0.10	28,303	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.31	--d	14	--d	---	0.10	--d	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--d	14	--d	0.033	0.10	--d	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	482	--c	14	--c	470	2,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.030	--d	14	--d	0.0038	1.0	--d	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.13	--d	14	--d	0.025	1.0	--d	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	29,747	--c	14	--c	---	1,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.79	22,536	14	1,640	0.18	1.0	1,640	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	450	--c	14	--c	---	10,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Americium-241	14596-10-2	pCi/g	2.1	92,105	14	6,702	---	1.0	6,702	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	57	14	4.1	---	2.0	4.1	Scaled SWP SSL	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	14	28,303	1.1	0.10	28,303	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	595	--c	14	--c	470	2,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.23	--d	14	--d	0.0038	1.0	--d	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	2.2	--d	14	--d	0.025	1.0	--d	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	35,177	--c	14	--c	---	1,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Strontium-90	10098-97-2	pCi/g	11	22,536	14	1,640	0.18	1.0	1,640	Scaled SWP SSL	No
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	594	--c	14	--c	---	10,000	--c	--	--
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Tritium	10028-17-8	pCi/g	5.3	1,040	14	76	---	---	76	Scaled SWP SSL	No
100-K-6_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.055	92,105	2.1	43,064	---	1.0	43,064	Scaled SWP SSL	No
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	57	2.1	27	---	2.0	27	Scaled SWP SSL	Yes
100-K-6_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.042	--d	2.1	--d	0.025	1.0	--d	--	--
100-K-6_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	30,800	--c	2.1	--c	---	1,000	--c	--	--
100-K-6_Shallow	non-Rad	Tin	7440-31-5	ug/kg	477	--c	2.1	--c	---	10,000	--c	--	--
100-K-62_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.17	92,105	14	6,702	---	1.0	6,702	Scaled SWP SSL	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	57	14	4.1	---	2.0	4.1	Scaled SWP SSL	Yes
100-K-62_Shallow	Rad	Plutonium-238	13981-16-3	pCi/g	0.036	--d	14	--d	0.0038	1.0	--d	--	--
100-K-62_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.20	--d	14	--d	0.025	1.0	--d	--	--
100-K-62_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	22,900	--c	14	--c	---	1,000	--c	--	--
100-K-62_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.76	22,536	14	1,640	0.18	1.0	1,640	Scaled SWP SSL	No
100-K-62_Shallow	non-Rad	Tin	7440-31-5	ug/kg	383	--c	14	--c	---	10,000	--c	--	--
100-K-63_Shallow_1	Rad	Cobalt-60	10198-40-0	pCi/g	0.023	--d	146	--d	0.0084	0.050	--d	--	--
100-K-63_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.19	--d	146	--d	---	0.10	--d	--	--
100-K-63_Shallow_1	Rad	Europium-154	15585-10-1	pCi/g	0.16	--d	146	--d	0.033	0.10	--d	--	--
100-K-63_Shallow_1	Rad	Europium-155	14391-16-3	pCi/g	0.20	--d	146	--d	0.054	0.10	--d	--	--
100-K-63_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	152	6000[b]	146	6,000	---	500	6,000	SWP SSL	No
100-K-63_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	14	476	146	3.2	13	200	200	RDL	No
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	13,933	146	95	780	1,000	1,000	RDL	Yes
100-K-63_Shallow_1	non-Rad	Strontium	7440-24-6	ug/kg	27,553	--c	146	--c	---	1,000	--c	--	--
100-K-63_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	2.1	22,536	146	154	0.18	1.0	154	Scaled SWP SSL	No
100-K-63_Shallow_1	non-Rad	Tin	7440-31-5	ug/kg	937	--c	146	--c	---	10,000	--c	--	--
100-K-63_Shallow_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.041	--d	146	--d	0.0084	0.050	--d	--	--
100-K-63_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.091	--d	146	--d	---	0.10	--d	--	--
100-K-63_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.14	--d	146	--d	0.033	0.10	--d	--	--
100-K-63_Shallow_2	non-Rad	Lead	7439-92-1	ug/kg	13,047	--d	146	--d	10,200	5,000	--d	--	--
100-K-63_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	675	--c	146	--c	470	2,000	--c	--	--
100-K-63_Shallow_2	non-Rad	Selenium	7782-49-2	ug/kg	874	13,933	146	95	780	1,000	1,000	RDL	No
100-K-63_Shallow_2	non-Rad	Strontium	7440-24-6	ug/kg	56,140	--c	146	--c	---	1,000	--c	--	--
100-K-63_Shallow_2	non-Rad	Tin	7440-31-5	ug/kg	467	--c	146	--c	---	10,000	--c	--	--
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	5.04E+06	146	34,407	67,800	1,000	67,800	Background	Yes
100-K-77_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	57	--c	3.2	--c	---	330	--c	--	--
100-K-77_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	6.2	--c	3.2	--c	---	600	--c	--	--
100-K-77_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	13	--c	3.2	--c	---	15	--c	--	--
100-K-77_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	15	--c	3.2	--c	---	15	--c	--	--
100-K-77_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	5.2	--c	3.2	--c	---	15	--c	--	--
100-K-77_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	13	--c	3.2	--c	---	100	--c	--	--
100-K-77_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--c	3.2	--c	---	330	--c	--	--
100-K-77_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	6.8	--c	3.2	--c	---	330	--c	--	--
100-K-77_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	130	6000[b]	3.2	6,000	---	500	6,000	SWP SSL	No
100-K-77_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	17	--c	3.2	--c	---	330	--c	--	--
100-K-77_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	1,389	--c	3.2	--c	470	2,000	--c	--	--
100-K-77_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--c	3.2	--c	---	330	--c	--	--
100-K-77_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	927	13,933	3.2	4,302	780	1,000	4,302	Scaled SWP SSL	No
100-K-77_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	40,917	--c	3.2	--c	---	1,000	--c	--	--
100-K-77_Shallow	non-Rad	Tin	7440-31-5	ug/kg	2,160	--c	3.2	--c	---	10,000	--c	--	--
100-K-78_Shallow_Focused	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
100-K-78_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--d	1.0	--d	18,500	1,000	--d	--	--
100-K-78_Shallow_Focused	Rad	Cobalt-60	10198-40-0	pCi/g	0.073	--d	1.0	--d	0.0084	0.050	--d	--	--
100-K-78_Shallow_Focused	Rad	Europium-152	14683-23-9	pCi/g	0.27	--d	1.0	--d	---	0.10	--d	--	--
100-K-78_Shallow_Focused	Rad	Nickel-63	13981-37-8	pCi/g	7.2	19,048	1.0	19,048	---	30	19,048	Scaled SWP SSL	No
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	129,998	6.5	20,079	22,000	1,000	22,000	Background	Yes
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	476	6.5	74	13	200	200	RDL	Yes
100-K-86_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	4.5	--c	1.0	--c	---	15	--c	--	--
100-K-86_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	10	--c	1.0	--c	---	15	--c	--	--
100-K-86_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	12	--c	1.0	--c	---	15	--c	--	--
100-K-86_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	17	--c	1.0	--c	---	100	--c	--	--
100-K-86_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	30	--c	1.0	--c	---	330	--c	--	--
100-K-86_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	43	--c	1.0	--c	---	330	--c	--	--
100-K-88_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	9,500	--c	1.0	--c	3,890	2,000	--c	--	--
100-K-88_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,100	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-88_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	980	--c	1.0	--c	470	2,000	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-88_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,200	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	42	--c	197	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	39	--c	197	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	65	--c	197	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	47	--c	197	--c	---	100	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	88	--c	197	--c	---	330	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	63	--c	197	--c	---	330	--c	--	--
100-K-89, 600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	896	13,933	197	71	780	1,000	1,000	RDL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	26	--c	1.0	--c	---	600	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	190	--c	1.0	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	100	--c	1.0	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	260	--c	1.0	--c	---	15	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	250	--c	1.0	--c	---	100	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	29,500	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	530	--c	1.0	--c	---	330	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	42	--c	1.0	--c	---	330	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	22,900	--d	1.0	--d	10,200	5,000	--d	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	440	--c	1.0	--c	---	330	--c	--	--
100-K-89, 600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	890	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
100-K-89, 600-29_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	124,000	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
100-K-90_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17	476	1.0	476	13	200	476	Scaled SWP SSL	No
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	476	1.0	476	13	200	476	Scaled SWP SSL	Yes
100-K-91_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	113,000	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	76	--c	1.0	--c	---	330	--c	--	--
100-K-92_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	216	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
100-K-92_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	1,700	--c	1.0	--c	470	2,000	--c	--	--
100-K-95_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	19	--c	131	--c	---	330	--c	--	--
100-K-95_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	54	--c	131	--c	---	15	--c	--	--
100-K-95_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	27	--c	131	--c	---	15	--c	--	--
100-K-95_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	45	--c	131	--c	---	15	--c	--	--
100-K-95_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	18	--c	131	--c	---	15	--c	--	--
100-K-95_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	59	--c	131	--c	---	100	--c	--	--
100-K-95_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	119	--c	131	--c	---	330	--c	--	--
100-K-95_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	8.9	--c	131	--c	---	330	--c	--	--
100-K-95_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	20	--c	131	--c	---	330	--c	--	--
100-K-95_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--c	131	--c	---	330	--c	--	--
100-K-95_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	104	--c	131	--c	---	330	--c	--	--
116-K-1_Deep	Rad	Cesium-137	10045-97-3	pCi/g	15	389,000	160	2,425	1.1	0.10	2,425	Scaled SWP SSL	No
116-K-1_Deep	Rad	Cobalt-60	10198-40-0	pCi/g	2.5	--d	160	--d	0.0084	0.050	--d	--	--
116-K-1_Deep	Rad	Europium-152	14683-23-9	pCi/g	5.5	--d	160	--d	---	0.10	--d	--	--
116-K-1_Deep	Rad	Europium-154	15585-10-1	pCi/g	1.0	--d	160	--d	0.033	0.10	--d	--	--
116-K-1_Deep	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	560	6000[b]	160	6,000	---	500	6,000	SWP SSL	No
116-K-1_Deep	Rad	Strontium-90	10098-97-2	pCi/g	8.6	22,536	160	140	0.18	1.0	140	Scaled SWP SSL	No
116-K-1_Shallow	Rad	Cesium-137	10045-97-3	pCi/g	1.2	389,000	160	2,425	1.1	0.10	2,425	Scaled SWP SSL	No
116-K-1_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.038	--d	160	--d	0.0084	0.050	--d	--	--
116-K-1_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.23	--d	160	--d	---	0.10	--d	--	--
116-K-1_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	260	6000[b]	160	6,000	---	500	6,000	SWP SSL	No
116-K-1_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	1.7	22,536	160	140	0.18	1.0	140	Scaled SWP SSL	No
116-K-2_Deep_1	Rad	Americium-241	14596-10-2	pCi/g	4.9	92,105	18	5,249	---	1.0	5,249	Scaled SWP SSL	No
116-K-2_Deep_1	Rad	Carbon-14	14762-75-5	pCi/g	2.0	57	18	3.2	---	2.0	3.2	Scaled SWP SSL	No
116-K-2_Deep_1	Rad	Cesium-137	10045-97-3	pCi/g	140	389,000	18	22,169	1.1	0.10	22,169	Scaled SWP SSL	No
116-K-2_Deep_1	Rad	Cobalt-60	10198-40-0	pCi/g	2.8	--d	18	--d	0.0084	0.050	--d	--	--
116-K-2_Deep_1	Rad	Europium-152	14683-23-9	pCi/g	69	--d	18	--d	---	0.10	--d	--	--
116-K-2_Deep_1	Rad	Europium-154	15585-10-1	pCi/g	6.2	--d	18	--d	0.033	0.10	--d	--	--
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6000[b]	18	6,000	---	500	6,000	SWP SSL	Yes
116-K-2_Deep_1	Rad	Nickel-63	13981-37-8	pCi/g	995	19,048	18	1,086	---	30	1,086	Scaled SWP SSL	No
116-K-2_Deep_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.72	--d	18	--d	0.0038	1.0	--d	--	--
116-K-2_Deep_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	7.9	--d	18	--d	0.025	1.0	--d	--	--
116-K-2_Deep_1	Rad	Strontium-90	10098-97-2	pCi/g	7.7	22,536	18	1,284	0.18	1.0	1,284	Scaled SWP SSL	No
116-K-2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	18	5,249	---	1.0	5,249	Scaled SWP SSL	No
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	57	18	3.2	---	2.0	3.2	Scaled SWP SSL	Yes
116-K-2_Deep_2	Rad	Cesium-137	10045-97-3	pCi/g	144	389,000	18	22,169	1.1	0.10	22,169	Scaled SWP SSL	No
116-K-2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	4.4	--d	18	--d	0.0084	0.050	--d	--	--
116-K-2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	82	--d	18	--d	---	0.10	--d	--	--
116-K-2_Deep_2	Rad	Europium-154	15585-10-1	pCi/g	12	--d	18	--d	0.033	0.10	--d	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
116-K-2_Deep_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	2,688	6000[b]	18	6,000	---	500	6,000	SWP SSL	No
116-K-2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	659	19,048	18	1,086	---	30	1,086	Scaled SWP SSL	No
116-K-2_Deep_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.24	--d	18	--d	0.0038	1.0	--d	--	--
116-K-2_Deep_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	6.0	--d	18	--d	0.025	1.0	--d	--	--
116-K-2_Deep_2	Rad	Strontium-90	10098-97-2	pCi/g	6.7	22,536	18	1,284	0.18	1.0	1,284	Scaled SWP SSL	No
116-K-2_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	3.0	57	18	3.2	---	2.0	3.2	Scaled SWP SSL	No
116-K-2_Shallow_1	Rad	Europium-152	14683-23-9	pCi/g	0.35	--d	18	--d	---	0.10	--d	--	--
116-K-2_Shallow_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	670	6000[b]	18	6,000	---	500	6,000	SWP SSL	No
116-K-2_Shallow_1	Rad	Nickel-63	13981-37-8	pCi/g	7.8	19,048	18	1,086	---	30	1,086	Scaled SWP SSL	No
116-K-2_Shallow_1	Rad	Strontium-90	10098-97-2	pCi/g	0.19	22,536	18	1,284	0.18	1.0	1,284	Scaled SWP SSL	No
116-K-2_Shallow_2	Rad	Cesium-137	10045-97-3	pCi/g	2.0	389,000	18	22,169	1.1	0.10	22,169	Scaled SWP SSL	No
116-K-2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.68	--d	18	--d	---	0.10	--d	--	--
116-K-2_Shallow_2	Rad	Europium-154	15585-10-1	pCi/g	0.17	--d	18	--d	0.033	0.10	--d	--	--
116-K-2_Shallow_2	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	250	6000[b]	18	6,000	---	500	6,000	SWP SSL	No
116-K-2_Shallow_2	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	18	1,086	---	30	1,086	Scaled SWP SSL	No
116-KE-4_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.086	--d	117	--d	0.0084	0.050	--d	--	--
116-KE-4_Shallow	Rad	Europium-152	14683-23-9	pCi/g	0.69	--d	117	--d	---	0.10	--d	--	--
116-KE-4_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.19	--d	117	--d	0.033	0.10	--d	--	--
116-KE-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	1,211	6000[b]	117	6,000	---	500	6,000	SWP SSL	No
116-KE-4_Shallow	Rad	Nickel-63	13981-37-8	pCi/g	5.0	19,048	117	162	---	30	162	Scaled SWP SSL	No
116-KE-4_Shallow	Rad	Strontium-90	10098-97-2	pCi/g	0.21	22,536	117	192	0.18	1.0	192	Scaled SWP SSL	No
116-KE-5_Shallow_Focused	non-Rad	Chromium	7440-47-3	ug/kg	30,000	--d	1.0	--d	18,500	1,000	--d	--	--
116-KE-5_Shallow_Focused	non-Rad	Ethylene glycol	107-21-1	ug/kg	59,038	--c	1.0	--c	---	330	--c	--	--
116-KE-5_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	330	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
116-KE-5_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	11,300	--d	1.0	--d	10,200	5,000	--d	--	--
116-KE-5_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	102	476	1.0	476	13	200	476	Scaled SWP SSL	No
116-KW-3_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.53	92,105	114	806	---	1.0	806	Scaled SWP SSL	No
116-KW-3_Shallow	Rad	Cobalt-60	10198-40-0	pCi/g	0.10	--d	114	--d	0.0084	0.050	--d	--	--
116-KW-3_Shallow	Rad	Europium-152	14683-23-9	pCi/g	1.5	--d	114	--d	---	0.10	--d	--	--
116-KW-3_Shallow	Rad	Europium-154	15585-10-1	pCi/g	0.26	--d	114	--d	0.033	0.10	--d	--	--
116-KW-3_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	543	6000[b]	114	6,000	---	500	6,000	SWP SSL	No
116-KW-3_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.92	--d	114	--d	0.025	1.0	--d	--	--
116-KW-4_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	240	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
118-K-1_P1_Shallow_1	non-Rad	Molybdenum	7439-98-7	ug/kg	588	--c	246	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_2	non-Rad	Copper[e]	7440-50-8	ug/kg	22,271	129,998	53	2,451	22,000	1,000	22,000	Background	Yes
118-K-1_P1_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.33	--d	246	--d	---	0.10	--d	--	--
118-K-1_P1_Shallow_2	non-Rad	Molybdenum	7439-98-7	ug/kg	776	--c	246	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_2	non-Rad	Zincf	7440-66-6	ug/kg	75,395	5.04E+06	53	95,029	67,800	1,000	95,029	Scaled SWP SSL	No
118-K-1_P1_Shallow_3	non-Rad	Iron[e]	7439-89-6	ug/kg	3.36E+07	1.49E+07	18	838,047	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P1_Shallow_3	non-Rad	Molybdenum	7439-98-7	ug/kg	588	--c	246	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_3	non-Rad	Vanadium	7440-62-2	ug/kg	90,500	--c	246	--c	85,100	2,500	--c	--	--
118-K-1_P1_Shallow_4	Rad	Europium-152	14683-23-9	pCi/g	0.13	--d	246	--d	---	0.10	--d	--	--
118-K-1_P1_Shallow_4	non-Rad	Molybdenum	7439-98-7	ug/kg	746	--c	246	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_4	Rad	Strontium-90	10098-97-2	pCi/g	5.6	22,536	246	92	0.18	1.0	92	Scaled SWP SSL	No
118-K-1_P1_Shallow_5	Rad	Cesium-137	10045-97-3	pCi/g	2.5	389,000	246	1,584	1.1	0.10	1,584	Scaled SWP SSL	No
118-K-1_P1_Shallow_5	Rad	Cobalt-60	10198-40-0	pCi/g	0.082	--d	246	--d	0.0084	0.050	--d	--	--
118-K-1_P1_Shallow_5	non-Rad	Methylene chloride	75-09-2	ug/kg	6.0	--c	246	--c	---	5.0	--c	--	--
118-K-1_P1_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	600	--c	246	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	77,441	--c	246	--c	52,000	750	--c	--	--
118-K-1_P1_Shallow_5	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.073	--d	246	--d	0.025	1.0	--d	--	--
118-K-1_P1_Shallow_5	Rad	Strontium-90	10098-97-2	pCi/g	0.86	22,536	246	92	0.18	1.0	92	Scaled SWP SSL	No
118-K-1_P1_Shallow_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.093	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
118-K-1_P1_Shallow_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	3.7	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
118-K-1_P1_Shallow_Focused_1	non-Rad	Methylene chloride	75-09-2	ug/kg	9.0	--c	1.0	--c	---	5.0	--c	--	--
118-K-1_P1_Shallow_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	600	--c	1.0	--c	470	2,000	--c	--	--
118-K-1_P1_Shallow_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.087	--d	1.0	--d	0.025	1.0	--d	--	--
118-K-1_P1_Shallow_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	2.0	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
118-K-1_P2_Deep_2	Rad	Americium-241	14596-10-2	pCi/g	0.30	92,105	246	375	---	1.0	375	Scaled SWP SSL	No
118-K-1_P2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	1.5	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.23	--d	246	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Deep_2	Rad	Europium-152	14683-23-9	pCi/g	0.46	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Deep_2	Rad	Nickel-63	13981-37-8	pCi/g	11	19,048	246	78	---	30	78	Scaled SWP SSL	No
118-K-1_P2_Deep_3	Rad	Americium-241	14596-10-2	pCi/g	0.24	92,105	246	375	---	1.0	375	Scaled SWP SSL	No
118-K-1_P2_Deep_3	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.3	--c	46	--c	---	2.0	--c	--	--
118-K-1_P2_Deep_3	Rad	Cobalt-60	10198-40-0	pCi/g	0.69	--d	246	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Deep_3	Rad	Europium-152	14683-23-9	pCi/g	1.1	--d	246	--d	---	0.10	--d	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m \text{ or } \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Deep_3	Rad	Europium-154	15585-10-1	pCi/g	0.43	--d	246	--d	0.033	0.10	--d	--	--
118-K-1_P2_Deep_3	Rad	Nickel-63	13981-37-8	pCi/g	38	19,048	246	78	---	30	78	Scaled SWP SSL	No
118-K-1_P2_Deep_3	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.12	--d	246	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.17	--d	246	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Deep_4	Rad	Europium-152	14683-23-9	pCi/g	1.3	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Deep_4	non-Rad	Molybdenum	7439-98-7	ug/kg	1,100	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Deep_4	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	---	30	78	Scaled SWP SSL	No
118-K-1_P2_Deep_4	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.21	--d	246	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_4	Rad	Strontium-90	10098-97-2	pCi/g	0.68	22,536	246	92	0.18	1.0	92	Scaled SWP SSL	No
118-K-1_P2_Deep_4	Rad	Tritium[e]	10028-17-8	pCi/g	5.2	1,040	59	18	---	---	18	Scaled SWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Aroclor-1254	11097-69-1	ug/kg	4.4	4,766	246	19	---	17	19	Scaled SWP SSL	No
118-K-1_P2_Deep_5	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.7	--c	75	--c	---	2.0	--c	--	--
118-K-1_P2_Deep_5	non-Rad	Iron[e]	7439-89-6	ug/kg	3.40E+07	1.49E+07	75	198,570	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P2_Deep_5	non-Rad	Molybdenum	7439-98-7	ug/kg	553	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Deep_5	Rad	Nickel-63	13981-37-8	pCi/g	12	19,048	246	78	---	30	78	Scaled SWP SSL	No
118-K-1_P2_Deep_5	non-Rad	Vanadium	7440-62-2	ug/kg	88,842	--c	246	--c	85,100	2,500	--c	--	--
118-K-1_P2_Deep_6	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_7	Rad	Americium-241	14596-10-2	pCi/g	1.8	92,105	246	375	---	1.0	375	Scaled SWP SSL	No
118-K-1_P2_Deep_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_7	Rad	Cesium-137	10045-97-3	pCi/g	10	389,000	246	1,584	1.1	0.10	1,584	Scaled SWP SSL	No
118-K-1_P2_Deep_7	non-Rad	Mercury	7439-97-6	ug/kg	18	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Deep_7	Rad	Nickel-63	13981-37-8	pCi/g	3.4	19,048	246	78	---	30	78	Scaled SWP SSL	No
118-K-1_P2_Deep_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--d	246	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_7	Rad	Strontium-90	10098-97-2	pCi/g	7.3	22,536	246	92	0.18	1.0	92	Scaled SWP SSL	No
118-K-1_P2_Deep_7	Rad	Tritium[e]	10028-17-8	pCi/g	7.5	1,040	53	20	---	---	20	Scaled SWP SSL	No
118-K-1_P2_Deep_7	non-Rad	Vanadium	7440-62-2	ug/kg	91,461	--c	246	--c	85,100	2,500	--c	--	--
118-K-1_P2_Deep_8	Rad	Americium-241	14596-10-2	pCi/g	0.28	92,105	246	375	---	1.0	375	Scaled SWP SSL	No
118-K-1_P2_Deep_8	Rad	Carbon-14	14762-75-5	pCi/g	0.84	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Deep_8	non-Rad	Iron[e]	7439-89-6	ug/kg	3.60E+07	1.49E+07	38	389,940	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P2_Deep_8	non-Rad	Manganese	7439-96-5	ug/kg	515,801	--c	246	--c	512,000	5,000	--c	--	--
118-K-1_P2_Deep_8	non-Rad	Molybdenum	7439-98-7	ug/kg	495	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Deep_8	Rad	Tritium[e]	10028-17-8	pCi/g	5.8	1,040	38	27	---	---	27	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Americium-241	14596-10-2	pCi/g	0.99	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Carbon-14	14762-75-5	pCi/g	2.3	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Cesium-137	10045-97-3	pCi/g	11	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Europium-152	14683-23-9	pCi/g	2.3	--d	1.0	--d	---	0.10	--d	--	--
118-K-1_P2_Deep_Focused_1	non-Rad	Mercury	7439-97-6	ug/kg	203	476	1.0	476	13	200	476	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	non-Rad	Molybdenum	7439-98-7	ug/kg	517	--c	1.0	--c	470	2,000	--c	--	--
118-K-1_P2_Deep_Focused_1	Rad	Nickel-63	13981-37-8	pCi/g	57	19,048	1.0	19,048	---	30	19,048	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-238	13981-16-3	pCi/g	0.053	--d	1.0	--d	0.0038	1.0	--d	--	--
118-K-1_P2_Deep_Focused_1	Rad	Plutonium-239/240	PU-239/240	pCi/g	3.7	--d	1.0	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_Focused_1	Rad	Strontium-90	10098-97-2	pCi/g	29	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Americium-241	14596-10-2	pCi/g	2.2	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Carbon-14	14762-75-5	pCi/g	14	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Cesium-137	10045-97-3	pCi/g	4.4	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Cobalt-60	10198-40-0	pCi/g	0.40	--d	1.0	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Deep_Focused_2	Rad	Europium-152	14683-23-9	pCi/g	37	--d	1.0	--d	---	0.10	--d	--	--
118-K-1_P2_Deep_Focused_2	Rad	Europium-154	15585-10-1	pCi/g	1.9	--d	1.0	--d	0.033	0.10	--d	--	--
118-K-1_P2_Deep_Focused_2	Rad	Nickel-63	13981-37-8	pCi/g	14	19,048	1.0	19,048	---	30	19,048	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-238	13981-16-3	pCi/g	0.32	--d	1.0	--d	0.0038	1.0	--d	--	--
118-K-1_P2_Deep_Focused_2	Rad	Plutonium-239/240	PU-239/240	pCi/g	1.6	--d	1.0	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_Focused_2	Rad	Strontium-90	10098-97-2	pCi/g	15	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_2	Rad	Tritium	10028-17-8	pCi/g	8.1	1,040	1.0	1,040	---	---	1,040	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Americium-241	14596-10-2	pCi/g	3.9	92,105	1.0	92,105	---	1.0	92,105	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Cesium-137	10045-97-3	pCi/g	36	389,000	1.0	389,000	1.1	0.10	389,000	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Cobalt-60	10198-40-0	pCi/g	0.20	--d	1.0	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Deep_Focused_7	Rad	Nickel-63	13981-37-8	pCi/g	8.4	19,048	1.0	19,048	---	30	19,048	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-238	13981-16-3	pCi/g	0.38	--d	1.0	--d	0.0038	1.0	--d	--	--
118-K-1_P2_Deep_Focused_7	Rad	Plutonium-239/240	PU-239/240	pCi/g	4.2	--d	1.0	--d	0.025	1.0	--d	--	--
118-K-1_P2_Deep_Focused_7	Rad	Strontium-90	10098-97-2	pCi/g	12	22,536	1.0	22,536	0.18	1.0	22,536	Scaled SWP SSL	No
118-K-1_P2_Deep_Focused_7	Rad	Tritium	10028-17-8	pCi/g	30	1,040	1.0	1,040	---	---	1,040	Scaled SWP SSL	No
118-K-1_P2_Shallow_1	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	4.5	--c	42	--c	---	2.0	--c	--	--
118-K-1_P2_Shallow_1	Rad	Tritium[e]	10028-17-8	pCi/g	6.5	1,040	42	25	---	---	25	Scaled SWP SSL	No
118-K-1_P2_Shallow_10	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_10	non-Rad	Copper[e]	7440-50-8	ug/kg	22,649	129,998	9.6	13,598	22,000	1,000	22,000	Background	Yes
118-K-1_P2_Shallow_10	non-Rad	Molybdenum	7439-98-7	ug/kg	1,590	--c	246	--c	470	2,000	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
118-K-1_P2_Shallow_11A	non-Rad	Molybdenum	7439-98-7	ug/kg	650	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11A	non-Rad	Nitrate	14797-55-8	ug/kg	121,000	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11B	Rad	Carbon-14	14762-75-5	pCi/g	0.88	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11B	non-Rad	Molybdenum	7439-98-7	ug/kg	678	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11B	non-Rad	Nitrate	14797-55-8	ug/kg	390,793	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11B	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--c	246	--c	---	750	--c	--	--
118-K-1_P2_Shallow_11C	non-Rad	Aluminum	7429-90-5	ug/kg	1.26E+07	--d	246	--d	1.18E+07	---	--d	--	--
118-K-1_P2_Shallow_11C	Rad	Carbon-14	14762-75-5	pCi/g	0.87	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11C	non-Rad	Mercury	7439-97-6	ug/kg	39	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Shallow_11C	non-Rad	Molybdenum	7439-98-7	ug/kg	517	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11C	non-Rad	Nitrate	14797-55-8	ug/kg	169,367	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11D	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11D	non-Rad	Molybdenum	7439-98-7	ug/kg	563	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11D	non-Rad	Nitrate	14797-55-8	ug/kg	148,000	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11E	Rad	Carbon-14[e,f]	14762-75-5	pCi/g	2.1	--c	42	--c	---	2.0	--c	--	--
118-K-1_P2_Shallow_11E	non-Rad	Copper[e]	7440-50-8	ug/kg	22,325	129,998	42	3,117	22,000	1,000	22,000	Background	Yes
118-K-1_P2_Shallow_11E	non-Rad	Molybdenum	7439-98-7	ug/kg	563	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11E	non-Rad	Nitrate	14797-55-8	ug/kg	56,000	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11F	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11F	non-Rad	Mercury	7439-97-6	ug/kg	22	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Shallow_11F	non-Rad	Molybdenum	7439-98-7	ug/kg	884	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11F	non-Rad	Nitrate	14797-55-8	ug/kg	65,100	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_11F	Rad	Tritium	10028-17-8	pCi/g	3.7	1,040	246	4.2	---	---	4.2	Scaled SWP SSL	No
118-K-1_P2_Shallow_11G	Rad	Carbon-14	14762-75-5	pCi/g	1.9	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11G	non-Rad	Molybdenum	7439-98-7	ug/kg	582	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_11G	non-Rad	Vanadium	7440-62-2	ug/kg	85,361	--c	246	--c	85,100	2,500	--c	--	--
118-K-1_P2_Shallow_11H	Rad	Carbon-14	14762-75-5	pCi/g	1.6	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_11H	Rad	Europium-152	14683-23-9	pCi/g	0.29	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Shallow_11H	non-Rad	Molybdenum	7439-98-7	ug/kg	488	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	1.0	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_2	Rad	Europium-152	14683-23-9	pCi/g	0.23	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Shallow_3	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_4	Rad	Carbon-14	14762-75-5	pCi/g	0.86	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_4	Rad	Cobalt-60	10198-40-0	pCi/g	0.27	--d	246	--d	0.0084	0.050	--d	--	--
118-K-1_P2_Shallow_5	Rad	Carbon-14	14762-75-5	pCi/g	0.79	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_5	Rad	Europium-152	14683-23-9	pCi/g	0.32	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Shallow_5	non-Rad	Mercury	7439-97-6	ug/kg	58	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Shallow_5	non-Rad	Molybdenum	7439-98-7	ug/kg	550	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_6	Rad	Carbon-14	14762-75-5	pCi/g	0.81	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_6	Rad	Europium-152	14683-23-9	pCi/g	0.20	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Shallow_6	Rad	Tritium[e]	10028-17-8	pCi/g	8.3	1,040	89	12	---	---	12	Scaled SWP SSL	No
118-K-1_P2_Shallow_7	Rad	Carbon-14	14762-75-5	pCi/g	1.2	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_7	non-Rad	Copper[e]	7440-50-8	ug/kg	22,500	129,998	72	1,812	22,000	1,000	22,000	Background	Yes
118-K-1_P2_Shallow_7	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	76	--c	246	--c	---	330,000	--c	--	--
118-K-1_P2_Shallow_7	non-Rad	Lead	7439-92-1	ug/kg	11,142	--d	246	--d	10,200	5,000	--d	--	--
118-K-1_P2_Shallow_7	non-Rad	Mercury	7439-97-6	ug/kg	129	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Shallow_7	non-Rad	Molybdenum	7439-98-7	ug/kg	650	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_7	non-Rad	Zinc[e]	7440-66-6	ug/kg	77,182	5.04E+06	72	70,266	67,800	1,000	70,266	Scaled SWP SSL	Yes
118-K-1_P2_Shallow_8	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	246	0.23	---	2.0	2.0	RDL	No
118-K-1_P2_Shallow_8	Rad	Tritium	10028-17-8	pCi/g	3.4	1,040	246	4.2	---	---	4.2	Scaled SWP SSL	No
118-K-1_P2_Shallow_9	Rad	Europium-152	14683-23-9	pCi/g	0.053	--d	246	--d	---	0.10	--d	--	--
118-K-1_P2_Shallow_9	non-Rad	Mercury	7439-97-6	ug/kg	21	476	246	1.9	13	200	200	RDL	No
118-K-1_P2_Shallow_9	non-Rad	Molybdenum	7439-98-7	ug/kg	641	--c	246	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_9	non-Rad	Nitrate	14797-55-8	ug/kg	231,145	--c	246	--c	52,000	750	--c	--	--
118-K-1_P2_Shallow_9	non-Rad	Nitrite	14797-65-0	ug/kg	1,000	--c	246	--c	---	750	--c	--	--
118-K-1_P2_Shallow_Focused_3	Rad	Carbon-14	14762-75-5	pCi/g	1.7	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	1.49E+07	1.0	1.49E+07	3.26E+07	---	3.26E+07	Background	Yes
118-K-1_P2_Shallow_Focused_3	non-Rad	Molybdenum	7439-98-7	ug/kg	481	--c	1.0	--c	470	2,000	--c	--	--
118-K-1_P2_Shallow_Focused_3	non-Rad	Nickel	7440-02-0	ug/kg	26,500	3.17E+06	1.0	3.17E+06	19,100	4,000	3.17E+06	Scaled SWP SSL	No
118-K-1_P2_Shallow_Focused_3	non-Rad	Vanadium	7440-62-2	ug/kg	99,100	--c	1.0	--c	85,100	2,500	--c	--	--
118-K-1_P2_Shallow_Focused_4	Rad	Carbon-14	14762-75-5	pCi/g	3.1	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
118-K-1_P2_Shallow_Focused_5	Rad	Carbon-14	14762-75-5	pCi/g	1.3	57	1.0	57	---	2.0	57	Scaled SWP SSL	No
118-K-1_P2_Shallow_Focused_6	non-Rad	Chromium	7440-47-3	ug/kg	20,300	--d	1.0	--d	18,500	1,000	--d	--	--
118-K-1_P2_Shallow_Focused_6	non-Rad	Nickel	7440-02-0	ug/kg	20,400	3.17E+06	1.0	3.17E+06	19,100	4,000	3.17E+06	Scaled SWP SSL	No
118-K-1_P2_Shallow_Focused_6	Rad	Tritium	10028-17-8	pCi/g	12	1,040	1.0	1,040	---	---	1,040	Scaled SWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Fluoride	16984-48-8	ug/kg	1,910	--c	6.2	--c	2,810	5,000	--c	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg}\cdot m\ or\ \frac{pCi}{g}\cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	108	6000[b]	6.2	6,000	---	500	6,000	SWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Lead	7439-92-1	ug/kg	10,893	--d	6.2	--d	10,200	5,000	--d	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	559	--c	6.2	--c	470	2,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,120	13,933	6.2	2,256	780	1,000	2,256	Scaled SWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,645	--c	6.2	--c	---	1,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow	non-Rad	Tin	7440-31-5	ug/kg	568	--c	6.2	--c	---	10,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Boron	7440-42-8	ug/kg	5,100	--c	1.0	--c	3,890	2,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	34,900	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Molybdenum	7439-98-7	ug/kg	610	--c	1.0	--c	470	2,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	2,000	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Strontium	7440-24-6	ug/kg	43,900	--c	1.0	--c	---	1,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Tin	7440-31-5	ug/kg	600	--c	1.0	--c	---	10,000	--c	--	--
120-KW-1, 120-KW-2, 120-KW-3, 120-KW-4_Shallow_Focused	non-Rad	Vanadium	7440-62-2	ug/kg	93,600	--c	1.0	--c	85,100	2,500	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Anthracene	120-12-7	ug/kg	670	--c	1.0	--c	---	600	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	8,300	--c	1.0	--c	---	15	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	2,900	--c	1.0	--c	---	15	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	6,100	--c	1.0	--c	---	15	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	4,100	--c	1.0	--c	---	15	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	870	--c	1.0	--c	---	330	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	11,000	--c	1.0	--c	---	100	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	1,200	--c	1.0	--c	---	30	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	11,000	--c	1.0	--c	---	330	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	480	6000[b]	1.0	6,000	---	500	6,000	SWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	1,900	--c	1.0	--c	---	330	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	10,800	--d	1.0	--d	10,200	5,000	--d	--	--
128-K-1_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	30	476	1.0	476	13	200	476	Scaled SWP SSL	No
128-K-1_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	11,000	--c	1.0	--c	---	330	--c	--	--
128-K-1_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	800	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
128-K-2_Shallow	non-Rad	Acenaphthene	83-32-9	ug/kg	18	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Acetone	67-64-1	ug/kg	10	--c	74	--c	---	20	--c	--	--
128-K-2_Shallow	non-Rad	Anthracene	120-12-7	ug/kg	11	--c	74	--c	---	600	--c	--	--
128-K-2_Shallow	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	27	--c	74	--c	---	15	--c	--	--
128-K-2_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	28	--c	74	--c	---	15	--c	--	--
128-K-2_Shallow	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	33	--c	74	--c	---	15	--c	--	--
128-K-2_Shallow	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	9.4	--c	74	--c	---	15	--c	--	--
128-K-2_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	14	--c	74	--c	---	100	--c	--	--
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	129,998	74	1,763	22,000	1,000	22,000	Background	Yes
128-K-2_Shallow	non-Rad	Dibenz(a,h)anthracene	53-70-3	ug/kg	16	--c	74	--c	---	30	--c	--	--
128-K-2_Shallow	non-Rad	Fluoranthene	206-44-0	ug/kg	41	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Fluorene	86-73-7	ug/kg	14	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	18	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	476	74	6.5	13	200	200	RDL	No
128-K-2_Shallow	non-Rad	Naphthalene	91-20-3	ug/kg	16	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	42	--c	74	--c	---	330	--c	--	--
128-K-2_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	973	13,933	74	189	780	1,000	1,000	RDL	No
128-K-2_Shallow_Focused	non-Rad	Acetone	67-64-1	ug/kg	10	--c	1.0	--c	---	20	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Aroclor-1254	11097-69-1	ug/kg	5.4	4,766	1.0	4,766	---	17	4,766	Scaled SWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Aroclor-1260	11096-82-5	ug/kg	50	--d	1.0	--d	---	17	--d	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	10	--c	1.0	--c	---	15	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	9.5	--c	1.0	--c	---	15	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	14	--c	1.0	--c	---	15	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Benzo(k)fluoranthene	207-08-9	ug/kg	7.8	--c	1.0	--c	---	15	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	12	--c	1.0	--c	---	100	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	73,600	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	29	--c	1.0	--c	---	330	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	28,300	--d	1.0	--d	10,200	5,000	--d	--	--
128-K-2_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	100	476	1.0	476	13	200	476	Scaled SWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	18	--c	1.0	--c	---	330	--c	--	--
128-K-2_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	1,100	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
128-K-2_Shallow_Focused	non-Rad	Zinc	7440-66-6	ug/kg	88,000	5.04E+06	1.0	5.04E+06	67,800	1,000	5.04E+06	Scaled SWP SSL	No
132-KE-1_Shallow	Rad	Americium-241	14596-10-2	pCi/g	0.040	92,105	4.9	18,779	---	1.0	18,779	Scaled SWP SSL	No
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	57	4.9	12	---	2.0	12	Scaled SWP SSL	Yes
132-KE-1_Shallow	Rad	Plutonium-239/240	PU-239/240	pCi/g	0.041	--d	4.9	--d	0.025	1.0	--d	--	--
132-KE-1_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	31,500	--c	4.9	--c	---	1,000	--c	--	--
132-KE-1_Shallow	non-Rad	Tin	7440-31-5	ug/kg	494	--c	4.9	--c	---	10,000	--c	--	--
1607-K3_Shallow	non-Rad	Aroclor-1254	11097-69-1	ug/kg	12	4,766	8.7	547	---	17	547	Scaled SWP SSL	No
1607-K3_Shallow	non-Rad	Chromium	7440-47-3	ug/kg	22,200	--d	8.7	--d	18,500	1,000	--d	--	--

Table 7-5. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Levels Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Soil Screening Level for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP SSL (µg/kg or pCi/g)	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
1607-K3_Shallow	non-Rad	Lead	7439-92-1	ug/kg	23,100	--d	8.7	--d	10,200	5,000	--d	--	--
1607-K3_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	59	476	8.7	55	13	200	200	RDL	No
1607-K3_Shallow	non-Rad	Molybdenum	7439-98-7	ug/kg	550	--c	8.7	--c	470	2,000	--c	--	--
1607-K3_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	886	13,933	8.7	1,599	780	1,000	1,599	Scaled SWP SSL	No
1607-K3_Shallow	non-Rad	Strontium	7440-24-6	ug/kg	35,500	--c	8.7	--c	---	1,000	--c	--	--
1607-K3_Shallow	non-Rad	Tin	7440-31-5	ug/kg	549	--c	8.7	--c	---	10,000	--c	--	--
1607-K3_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	68,900	5.04E+06	8.7	578,429	67,800	1,000	578,429	Scaled SWP SSL	No
600-29_Shallow	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	67	--c	197	--c	---	15	--c	--	--
600-29_Shallow	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	103	--c	197	--c	---	330	--c	--	--
600-29_Shallow	non-Rad	Chrysene	218-01-9	ug/kg	46	--c	197	--c	---	100	--c	--	--
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	129,998	197	659	22,000	1,000	22,000	Background	Yes
600-29_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	22	476	197	2.4	13	200	200	RDL	No
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	3.17E+06	197	16,087	19,100	4,000	19,100	Background	Yes
600-29_Shallow	non-Rad	Pyrene	129-00-0	ug/kg	87	--c	197	--c	---	330	--c	--	--
600-29_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	985	13,933	197	71	780	1,000	1,000	RDL	No
600-29_Shallow_Focused	non-Rad	Benzo(a)anthracene	56-55-3	ug/kg	72	--c	1.0	--c	---	15	--c	--	--
600-29_Shallow_Focused	non-Rad	Benzo(a)pyrene	50-32-8	ug/kg	120	--c	1.0	--c	---	15	--c	--	--
600-29_Shallow_Focused	non-Rad	Benzo(b)fluoranthene	205-99-2	ug/kg	210	--c	1.0	--c	---	15	--c	--	--
600-29_Shallow_Focused	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	ug/kg	120	--c	1.0	--c	---	330	--c	--	--
600-29_Shallow_Focused	non-Rad	Chrysene	218-01-9	ug/kg	90	--c	1.0	--c	---	100	--c	--	--
600-29_Shallow_Focused	non-Rad	Copper	7440-50-8	ug/kg	28,900	129,998	1.0	129,998	22,000	1,000	129,998	Scaled SWP SSL	No
600-29_Shallow_Focused	non-Rad	Di-n-butylphthalate	84-74-2	ug/kg	240	--c	1.0	--c	---	330,000	--c	--	--
600-29_Shallow_Focused	non-Rad	Fluoranthene	206-44-0	ug/kg	100	--c	1.0	--c	---	330	--c	--	--
600-29_Shallow_Focused	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	96	--c	1.0	--c	---	330	--c	--	--
600-29_Shallow_Focused	non-Rad	Lead	7439-92-1	ug/kg	21,700	--d	1.0	--d	10,200	5,000	--d	--	--
600-29_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	16	476	1.0	476	13	200	476	Scaled SWP SSL	No
600-29_Shallow_Focused	non-Rad	Pyrene	129-00-0	ug/kg	96	--c	1.0	--c	---	330	--c	--	--
600-29_Shallow_Focused	non-Rad	Selenium	7782-49-2	ug/kg	940	13,933	1.0	13,933	780	1,000	13,933	Scaled SWP SSL	No
600-29_Shallow_Focused	non-Rad	Silver	7440-22-4	ug/kg	180	12,526	1.0	12,526	167	200	12,526	Scaled SWP SSL	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

b. The soil screening level for hexavalent chromium is set to a maximum value of 6,000 µg/kg because the kd value used in the model was derived from experiments with soil concentration less than 6,000 µg/kg.
c. A soil screening level is not calculated because a surface water quality standard or criterion is not available for the analyte.

d. The calculated soil screening level for the analyte is considered non-representative because: (1) breakthrough is simulated within 1,000 years for some soil columns while other soil columns (a majority) show no breakthrough (breakthrough defined as concentrations exceeding 1E-04 µg/L or activity exceeding 1E-04 pCi/L).

e. Waste site dimension was measured using the maximum flowline length of respective area delineated in Figure 7 of CVP-2013-00002 Rev.1
f. Carbon-14 in this waste area is represented by Carbon-14 in graphite form (Kd = 200 mL/g)
ECF-Hanford-13-0012, Rev. 0, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report*.

Table 7-6. Evaluation of 100-KR-1&2 OU Waste Site Decision Units with EPCs Greater than Groundwater Protection Soil Screening Levels

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?
100-K-110_Shallow	non-Rad	Antimony	7440-36-0	ug/kg	4,417	1,386	Scaled GWP SSL	Yes[a]
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	3.26E+07	Background	Yes[b]
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	1,038	Scaled GWP SSL	Yes[c]
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	4.1	Scaled GWP SSL	Yes[d]
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	4.1	Scaled GWP SSL	Yes[d]
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	27	Scaled GWP SSL	Yes[d]
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	4.1	Scaled GWP SSL	Yes[d]
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	1,000	RDL	Yes[e]
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000	GWP SSL	Yes
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	3.2	Scaled GWP SSL	Yes
118-K-1_P1_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	3.36E+07	3.26E+07	Background	Yes[f]
118-K-1_P1_Shallow_5	non-Rad	Nitrate	14797-55-8	ug/kg	77,441	69,135	Scaled GWP SSL	Yes[g]
118-K-1_P2_Deep_5	non-Rad	Iron	7439-89-6	ug/kg	3.40E+07	3.26E+07	Background	Yes[h]
118-K-1_P2_Deep_8	non-Rad	Iron	7439-89-6	ug/kg	3.60E+07	3.26E+07	Background	Yes[i]
118-K-1_P2_Shallow_11A	non-Rad	Nitrate	14797-55-8	ug/kg	121,000	52,000	Background	Yes[i]
118-K-1_P2_Shallow_11B	non-Rad	Nitrate	14797-55-8	ug/kg	390,793	52,000	Background	Yes[k]
118-K-1_P2_Shallow_11C	non-Rad	Nitrate	14797-55-8	ug/kg	169,367	52,000	Background	Yes[l]
118-K-1_P2_Shallow_11D	non-Rad	Nitrate	14797-55-8	ug/kg	148,000	52,000	Background	Yes[m]
118-K-1_P2_Shallow_11E	non-Rad	Nitrate	14797-55-8	ug/kg	56,000	52,000	Background	Yes[n]
118-K-1_P2_Shallow_11F	non-Rad	Nitrate	14797-55-8	ug/kg	65,100	52,000	Background	Yes[o]
118-K-1_P2_Shallow_7	non-Rad	Antimony	7440-36-0	ug/kg	16,300	2,595	Scaled GWP SSL	Yes[p]
118-K-1_P2_Shallow_9	non-Rad	Nitrate	14797-55-8	ug/kg	231,145	58,249	Scaled GWP SSL	Yes[q]
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	12	Scaled GWP SSL	Yes[d]
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	30,936	Scaled GWP SSL	Yes[r]

a. Exceeded GWP SSL but eliminated through further evaluation. The EPC for antimony (4,417 µg/kg) is based on the 95% GROS Adjusted Gamma UCL from a set of 26 samples (21 detects and 5 nondetects). Site-specific modeling used the soil column that represents the remediated waste site instead of the worst case soil column, these results show that antimony will not impact groundwater at this location (see ECF-100KR1-17-0087).

b. Exceeded GWP SSL but eliminated through further evaluation. The EPC for iron (33,500,000 µg/kg) is based on the maximum concentration from a single result. The iron result (33,500,000 µg/kg) is within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

c. Exceeded GWP SSL but eliminated through further evaluation. The EPC for selenium (1,813 µg/kg) is based on the 95% KM (t) UCL from a set of 36 samples (16 detects and 20 nondetects). All 20 nondetected results were flagged with a "U" due to the presence of laboratory contamination; these results were assigned a reporting limit of 3,200 µg/kg (10X the MDL of 320 µg/kg). Fifteen of 16 selenium results were flagged with a "B" by the laboratory (estimated value) where the concentrations range between 620 µg/kg and 2,300 µg/kg; the 90th percentile Hanford background value is 780 µg/kg. Because of the difficulty in measuring low-levels of selenium, this range of estimated concentrations likely represents naturally occurring levels of selenium at this remediated waste site. Additionally, all selenium results from unfiltered groundwater samples within the 100-KR-4 Groundwater OU are less than the 90th percentile background value of

d. Carbon-14 is associated with the co-located 116-KE-1 gas condensate crib. Carbon-14 will be addressed in the remediation of the 116-KE-1 site.

e. Exceeded GWP SSL but eliminated through further evaluation. The EPC for selenium (1,290 µg/kg) is based on the 95% Student's-t UCL from a set of 56 samples (56 detects).The EPC represents a very low mass of potential contamination and there is not a signficant potential that contamination could migrate through the vadose zone and result in a concentration that could impact groundwater. Additionally, all selenium results from unfiltered groundwater samples within the 100-KR-4 Groundwater OU are less than the 90th percentile background value of 10.5 µg/L.

f. Exceeded GWP SSL but eliminated through further evaluation. The EPC for iron (33,600,000 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All iron results (29,200,000 µg/kg to 33,600,000µg/kg) are within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

g. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (77,441 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All nitrate results (33,800 µg/kg to 79,800 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

h. Exceeded GWP SSL but eliminated through further evaluation. The EPC for iron (33,974,151 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All iron results (30,600 mg/kg to 34,200 mg/kg) are within the range of naturally occurring levels (32,600 mg/kg and 68,100 mg/kg) at the Hanford Site.

i. Exceeded GWP SSL but eliminated through further evaluation. The EPC for iron (36,000 mg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All iron results (22,000 mg/kg to 36,300 mg/kg) are within the range of naturally occurring levels (32,600 mg/kg and 68,100 mg/kg) at the Hanford Site.

j. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (121,000 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All nitrate results (16,000 µg/kg to 121,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

k. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (390,793 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All nitrate results (65,900 µg/kg to 401,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

l. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (169,367 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All nitrate results (17,300 µg/kg to 174,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

m. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (148,000 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All nitrate results (42,700 µg/kg to 148,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

n. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (56,000 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All nitrate results (10,700 µg/kg to 56,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

o. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate (65,100 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All nitrate results (12,300 µg/kg to 62,400 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

Table 7-6. Evaluation of 100-KR-1&2 OU Waste Site Decision Units with EPCs Greater than Groundwater Protection Soil Screening Levels

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Selected GWP SSL (µg/kg or pCi/g)	Selected GWP SSL Basis	Is EPC > Soil Screening Level Protective of Groundwater?

p. Exceeded GWP SSL but eliminated through further evaluation. The EPC for antimony (16,300 µg/kg) is based on the maximum detection from a set of 4 samples (1 detect and 3 nondetects). Site-specific modeling used the soil column that represents the remediated waste site instead of the worst case soil column, these results show that antimony will not impact groundwater at

q. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nitrate 231,145 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All nitrate results (33,500 µg/kg to 258,000 µg/kg) are within the range of naturally occurring levels (52,000 µg/kg and 906,000 µg/kg) at the Hanford Site.

r. Exceeded GWP SSL but eliminated through further evaluation. The EPC for nickel (37,462 µg/kg) is based on the 95% Chebyshev (Mean, Sd) UCL from a set of 13 samples (13 detects). All nickel results (9,500 µg/kg to 75,300 µg/kg) are within the range of naturally occurring levels (19,100 µg/kg and 200,000 µg/kg) at the Hanford Site.

Table 7-7. Evaluation of 100-KR-1&2 OU Waste Site Decision Units with EPCs Greater than Surface Water Protection Soil Screening Levels

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Selected SWP SSL	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?
100-K-102_Shallow_1	non-Rad	Mercury	7439-97-6	ug/kg	5,086	200	RDL	Yes[a]
100-K-102_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,722	1,000	RDL	Yes[b]
100-K-102_Shallow_2	non-Rad	Cadmium	7440-43-9	ug/kg	962	563	Background	Yes[c]
100-K-102_Shallow_2	non-Rad	Mercury	7439-97-6	ug/kg	1,211	200	RDL	Yes[d]
100-K-109_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,027	1,000	RDL	Yes[e]
100-K-110_Shallow	non-Rad	Iron	7439-89-6	ug/kg	3.35E+07	3.26E+07	Background	Yes[f]
100-K-110_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	431	200	RDL	Yes[g]
100-K-110_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,813	1,000	RDL	Yes[h]
100-K-110_Shallow	non-Rad	Zinc	7440-66-6	ug/kg	76,549	67,800	Background	Yes[i]
100-K-14, 126-KE-2_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	492	200	RDL	Yes[j]
100-K-30_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	17,500	476	Scaled SWP SSL	Yes[k]
100-K-31_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	5,200	476	Scaled SWP SSL	Yes[k]
100-K-32_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	13,700	476	Scaled SWP SSL	Yes[l]
100-K-33_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	6,800	476	Scaled SWP SSL	Yes[l]
100-K-34, 100-K-102, 1607-K3_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,452	22,000	Background	Yes[m]
100-K-4_Deep	non-Rad	Selenium	7782-49-2	ug/kg	1,660	1,000	RDL	Yes[n]
100-K-4_Shallow	non-Rad	Selenium	7782-49-2	ug/kg	1,510	1,000	RDL	Yes[o]
100-K-46_Deep	non-Rad	Copper	7440-50-8	ug/kg	79,000	73,979	Scaled SWP SSL	Yes[p]
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	4.1	Scaled SWP SSL	Yes[q]
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	4.1	Scaled SWP SSL	Yes[q]
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	27	Scaled SWP SSL	Yes[q]
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	4.1	Scaled SWP SSL	Yes[q]
100-K-63_Shallow_1	non-Rad	Selenium	7782-49-2	ug/kg	1,290	1,000	RDL	Yes[r]
100-K-63_Shallow_2	non-Rad	Zinc	7440-66-6	ug/kg	70,136	67,800	Background	Yes[s]
100-K-84_Shallow	non-Rad	Copper	7440-50-8	ug/kg	24,206	22,000	Background	Yes[t]
100-K-84_Shallow	non-Rad	Mercury	7439-97-6	ug/kg	493	200	RDL	Yes[u]
100-K-91_Shallow_Focused	non-Rad	Mercury	7439-97-6	ug/kg	2,700	476	Scaled SWP SSL	Yes[v]
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000	SWP SSL	Yes
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	3.2	Scaled SWP SSL	Yes
118-K-1_P1_Shallow_2	non-Rad	Copper	7440-50-8	ug/kg	22,271	22,000	Background	Yes[w]
118-K-1_P1_Shallow_3	non-Rad	Iron	7439-89-6	ug/kg	3.36E+07	3.26E+07	Background	Yes[x]
118-K-1_P2_Deep_5	non-Rad	Iron	7439-89-6	ug/kg	3.40E+07	3.26E+07	Background	Yes[y]
118-K-1_P2_Deep_8	non-Rad	Iron	7439-89-6	ug/kg	3.60E+07	3.26E+07	Background	Yes[z]
118-K-1_P2_Shallow_10	non-Rad	Copper	7440-50-8	ug/kg	22,649	22,000	Background	Yes[aa]
118-K-1_P2_Shallow_11E	non-Rad	Copper	7440-50-8	ug/kg	22,325	22,000	Background	Yes[ab]
118-K-1_P2_Shallow_7	non-Rad	Copper	7440-50-8	ug/kg	22,500	22,000	Background	Yes[ac]
118-K-1_P2_Shallow_7	non-Rad	Zinc	7440-66-6	ug/kg	77,182	70,266	Scaled SWP SSL	Yes[ad]
118-K-1_P2_Shallow_Focused_3	non-Rad	Iron	7439-89-6	ug/kg	3.44E+07	3.26E+07	Background	Yes[ae]
128-K-2_Shallow	non-Rad	Copper	7440-50-8	ug/kg	23,700	22,000	Background	Yes[af]
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	12	Scaled SWP SSL	Yes[q]
600-29_Shallow	non-Rad	Copper	7440-50-8	ug/kg	26,238	22,000	Background	Yes[ag]
600-29_Shallow	non-Rad	Nickel	7440-02-0	ug/kg	37,462	19,100	BG	Yes[ah]

a. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (5,086 µg/kg) is based on the 99% KM (Chebyshev) UCL for a set of 16 samples (2 detects and 14 nondetects). Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

b. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,722 µg/kg) is based on the 95% Adjusted Gamma UCL from a set of 16 samples (16 detects). Nine of the selenium results were flagged "B" by the laboratory indicating they are estimated concentrations. The EPC represents a very low mass of potential contamination and there is not a signficant potential that contamination could migrate through the vadose zone and result in a concentration that could impact groundwater. Additionally, all selenium results from filtered groundwater samples within the 100-KR-4 Groundwater OU were less than the 90th percentile background value of 10.5 µg/L.

c. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for cadmium (962.2 µg/kg) is based on the 95% Chebyshev (Mean,SD) UCL from a set of 21 samples (21 detects). With the exception of the maximum detection, the cadmium results are within the range of naturally occurring levels (563 µg/kg and 2,980 µg/kg) at the Hanford Site. The EPC likely overstates the concentration at this decision unit and is unlikely to impact surface water.

d. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (1,211 µg/kg) is based on the 95% Gamma Adjusted KM-UCL for a set of 21 samples (5 detects and 16 nondetects). Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

e. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,027 µg/kg) is based on the 95% Student's-t UCL from a set of 12 samples (12 detects). All 12 selenium results were flagged "B" by the laboratory indicating they are estimated concentrations. All 12 selenium results were flagged with a "B" by the laboratory (estimated value) where the concentrations range between 656 µg/kg and 1,380 µg/kg; the 90th percentile Hanford background value is 780 µg/kg. Because of the difficulty in measuring low-levels of selenium, this range of estimated concentrations likely represents naturally occurring levels of selenium at this remediated waste site. Additionally, all selenium results from filtered groundwater samples within the 100-KR-4 Groundwater OU were less than the 90th percentile background value of 10.5 µg/L.

f. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for iron (33,500,000 µg/kg) is based on the maximum concentration from a single result. The iron result (33,500,000 µg/kg) is within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

g. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (431 µg/kg) is based on the 95% Gamma Adjusted KM-UCL for a set of 36 samples (13 detects and 23 nondetects). Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

h. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,813 µg/kg) is based on the 95% KM (t) UCL from a set of 36 samples (16 detects and 20 nondetects). All 20 nondetected results were flagged with a "U" due to the presence of laboratory contamination; these results were assigned a reporting limit of 3,200 µg/kg (10X the MDL of 320 µg/kg). Fifteen of 16 selenium results were flagged with a "B" by the laboratory (estimated value) where the concentrations range between 620 µg/kg and 2,300 µg/kg; the 90th percentile Hanford background value is 780 µg/kg. Because of the difficulty in measuring low-levels of selenium, this range of estimated

i. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for zinc (76,549 µg/kg) is based on 95% Modified-t UCL from a set of 36 samples (36 detects). All the zinc results are within the range of naturally occurring levels (67,800 µg/kg and 366,000 µg/kg) at the Hanford Site.

Table 7-7. Evaluation of 100-KR-1&2 OU Waste Site Decision Units with EPCs Greater than Surface Water Protection Soil Screening Levels

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration	Selected SWP SSL	Selected SWP SSL Basis	Is EPC > Soil Screening Level Protective of Surface Water?

j. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (492 µg/kg) is based on the95% KM(t) UCL from a set of 12 samples (10 detects and 2 nondetects). Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

k. Exceeded SWP SSL but eliminated through further evaluation. Additional remediation was conducted at waste sites 100-K-25, 100-K-27, 100-K-79:3, 100-K-79:4, 100-K-98, 120-KE-1, 120-KE-2, 120-KE-3, 120-KE-4, 120-KE-5, 120-KE-6, and 120-KE-9 . As a result, the EPC for mercury at this waste site is no longer representative of existing conditions.

l. Exceeded SWP SSL but eliminated through further evaluation. Additional remediation was conducted at waste sites 120-KW-1, 120-KW-2, 120-KW-3, and 120-KW-4 (DOE/RL-2011-113, Rev 0). As a result, the EPC for mercury at this waste site is no longer representative of existing conditions.

m. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (23,452 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All copper results (15,300 µg/kg to 24,400 µg/kg) were within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

n. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,660 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). The EPC represents a very low mass of potential contamination and there is not a signficant potential that contamination could migrate through the vadose zone and result in a concentration that could impact groundwater. Additionally, all selenium results from filtered groundwater samples within the 100-KR-4 Groundwater OU were less than the 90th percentile background value of 10.5 µg/L.

o. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,510 µg/kg) is based on the maximum concentration from a set of 4 samples (4 detects). The EPC represents a very low mass of potential contamination and there is not a signficant potential that contamination could migrate through the vadose zone and result in a concentration that could impact groundwater. Additionally, all selenium results from filtered groundwater samples within the 100-KR-4 Groundwater OU were less than the 90th percentile background value of 10.5 µg/L.

P. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for copper (79,000 µg/kg) is based on a single result. Site-specific evaluation using the most representative soil column indicates that copper is unlikely to impact groundwater.

q. Carbon-14 in decision units for the 100-K-6, 100-K-46, 100-K-62, and 132-KE-1 site group is associated with the co-located 116-KE-1 gas condensate crib. Associated C-14 SSL exceedances will therefore subsequently be considered as part of the 116-KE-1 site

r. Exceeded SWP SSL but eliminated through further evaluation. The EPC for selenium (1,290 µg/kg) is based on the 95% Student's-t UCL from a set of 56 samples (56 detects).The EPC represents a very low mass of potential contamination and there is not a signficant potential that contamination could migrate through the vadose zone and result in a concentration that could impact groundwater. Additionally, all selenium results from filtered groundwater samples within the 100-KR-4 Groundwater OU were less than the 90th percentile background value of 10.5 µg/L.

s. Exceeded SWP SSL but eliminated through further evaluation. The EPC for zinc (70,136 µg/kg) is based on 95% Modified-t UCL from a set of 20 samples (20 detects). All zinc results (41,100 µg/kg to 124,000 µg/kg) are within the range of naturally occurring levels (67,800 µg/kg and 366,000 µg/kg) at the Hanford Site.

t. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for copper (24,206 µg/kg) is based on 95% Student's-t UCL from a set of 12 samples (12 detects). All copper results (13,400 µg/kg to 33,700 µg/kg) were within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

u. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (493 µg/kg) is based on the 97.5% KM (Chebyshev) UCL from a set of 12 samples (9 detects and 3 nondetects). Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

v. Exceeded SWP SSL but eliminated through further evaluation. The EPC for mercury (2,700 µg/kg) is based on the maximum detection from a single sample. Site-specific evaluation using a representative soil column indicates that mercury is unlikely to impact groundwater at this location (see ECF-100KR1-17-0087).

w. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (22,271 µg/kg) is based on 95% Student's-t UCL from a set of 4 samples (4 detects). All copper results (19,200 µg/kg to 22,400 µg/kg) were within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

x. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for iron (33,600,000 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All iron results (29,200,000 µg/kg to 33,600,000µg/kg) are within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

y. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for iron (33,974,151 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All iron results (30,600 mg/kg to 34,200 mg/kg) are within the range of naturally occurring levels (32,600 mg/kg and 68,100 mg/kg) at the Hanford Site.

z. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for iron (36,000,000 µg/kg) is based on the 95% Student's-t UCL from a set of 4 samples (4 detects). All iron results (22,000,000 µg/kg to 36,300,000 µg/kg) are within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

aa. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (22,649 µg/kg) is based on 95% Student's-t UCL from a set of 4 samples (4 detects). All copper results (16,100 µg/kg to 23,400 µg/kg) are within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

ab. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (22,325 µg/kg) is based on 95% Student's-t UCL from a set of 4 samples (4 detects). All copper results (14,100 µg/kg to 23,600 µg/kg) are within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

ac. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (22,500 µg/kg) is based on the maximum detection from a set of 4 samples (4 detects). All copper results (16,800 µg/kg to 22,500 µg/kg) are within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

ad. Exceeded SWP SSL but eliminated through further evaluation. The EPC for zinc (77,182 µg/kg) is based on 95% Student's-t UCL from a set of 4 samples (4 detects). All the zinc results (50,400 µg/kg to 81,100 µg/kg) are within the range of naturally occurring levels (67,800 µg/kg and 366,000 µg/kg) at the Hanford Site.

ae. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for iron (34,400,000 µg/kg) is based on the maximum detection from a set of 3 samples (3 detects). All iron results (18,200,000 µg/kg to 34,400,000 µg/kg) are within the range of naturally occurring levels (32,600,000 µg/kg and 68,100,000 µg/kg) at the Hanford Site.

af. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (23,700 µg/kg) is based on 95% Modified-t UCL from a set of 12 samples (12 detects). All copper results (13,800 µg/kg to 41,100 µg/kg) are within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

ag. Exceeded SWP SSL but eliminated through further evaluation. The EPC for copper (26,238 µg/kg) is based on 95% Adjusted Gamma UCL from a set of 13 samples (13 detects). All copper results (13,400 µg/kg to 45,200 µg/kg) are within the range of naturally occurring levels (22,000 µg/kg and 61,000 µg/kg) at the Hanford Site.

ah. Exceeded SWP SSL but eliminated through further evaluation. The calculated EPC for nickel (37,462 µg/kg) is based on 95% Chebyshev (Mean, Sd) UCL from a set of 13 samples (13 detects). All the nickel results are within the range of naturally occurring levels (19,100 µg/kg and 200,000 µg/kg) at the Hanford Site.

Table 7-8. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goals Protective of Groundwater (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goal for Groundwater Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goal for Groundwater Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected GWP PRG (µg/kg or pCi/g)	Selected GWP PRG Basis	Is EPC > Preliminary Remediation Goal Protective of Groundwater?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	77	14	5.6	---	2.0	5.6	Scaled GWP PRG	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	77	14	5.6	---	2.0	5.6	Scaled GWP PRG	Yes
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	77	2.1	36	---	2.0	36	Scaled GWP PRG	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	77	14	5.6	---	2.0	5.6	Scaled GWP PRG	Yes
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000[b]	18	6,000	---	500	6,000	GWP PRG	Yes
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	77	18	4.4	---	2.0	4.4	Scaled GWP PRG	Yes
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	77	4.9	16	---	2.0	16	Scaled GWP PRG	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

-- = Not applicable or no value

Table 7-9. Comparison of EPCs from 100-KR-1&2 Operable Unit Waste Site Decision Units to STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goals Protective of Surface Water (With Background Consideration)

Waste Site/Decision Unit	Analyte Group	Analyte Name	CAS No.	Units	Exposure Point Concentration (µg/kg or pCi/g)	Unit -Length STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goal for Surface Water Protection[a] $\left(\frac{\mu g}{kg} \cdot m \text{ or } \frac{pCi}{g} \cdot m\right)$	Site Width in Direction of Groundwater Flow (m)	STOMP 1D 70:30/100:0 Contaminant Source Model Preliminary Remediation Goal for Surface Water Protection Scaled to Site Length in Direction of GW Flow (µg/kg or pCi/g)	Hanford Site 90th Percentile Background Value (µg/kg or pCi/g)	Required Detection Limit (µg/kg or pCi/g)	Selected SWP PRG (µg/kg or pCi/g)	Selected SWP PRG Basis	Is EPC > Preliminary Remediation Goal Protective of Surface Water?
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_1	Rad	Carbon-14	14762-75-5	pCi/g	66	77	14	5.6	---	2.0	5.6	Scaled SWP PRG	Yes
100-K-6, 100-K-46, 100-K-62, 132-KE-1_Shallow_2	Rad	Carbon-14	14762-75-5	pCi/g	139	77	14	5.6	---	2.0	5.6	Scaled SWP PRG	Yes
100-K-6_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	35	77	2.1	36	---	2.0	36	Scaled SWP PRG	No
100-K-62_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	20	77	14	5.6	---	2.0	5.6	Scaled SWP PRG	Yes
116-K-2_Deep_1	non-Rad	Hexavalent Chromium	18540-29-9	ug/kg	6,056	6,000[b]	18	6,000	---	500	6,000	SWP PRG	Yes
116-K-2_Deep_2	Rad	Carbon-14	14762-75-5	pCi/g	4.6	77	18	4.4	---	2.0	4.4	Scaled SWP PRG	Yes
132-KE-1_Shallow	Rad	Carbon-14	14762-75-5	pCi/g	15	77	4.9	16	---	2.0	16	Scaled SWP PRG	No

Notes:

a. ECF-100KR1-17-0087. A 70:30 source distribution is used for analytes with Kd ≥ 2 mL/g; a 100:0 source distribution is used for analytes with Kd < 2 mL/g. The exception to this rule is Strontium-90 which was modeled using a 100:0 source distribution ratio. These soil screening levels (SSLs) and preliminary remediation goals (PRGs) protective of groundwater and protective of surface water are provided on a unit-length basis. To apply these SSLs and/or PRGs, divide the listed value by a representative length across the waste site decision unit in the general direction of groundwater flow to obtain the SSL/PRG for evaluation use. (Note that this scaling is not applicable for arsenic, hexavalent chromium or TPH-diesel.)

-- = Not applicable or no value