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Well-Specific Tap Water Risk Assessment for the 100-NR-2 Groundwater Operable Unit

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Sara Lindberg's professional environmental consulting experience encompasses environmental chemistry, software development, and environmental science. Her efforts have focused primarily in hazardous waste regulatory work and environmental documentation, including environmental data analysis in support of the Comprehensive Environmental Response, Compensation, and Liability Act remedial investigation/feasibility study process, Resource Conservation and Recovery Act permitting of hazardous waste treatment, storage, and disposal facilities at federal facilities, and analytical chemistry. She has prepared compliance plans, permit applications, and sampling and analysis plans, as well as systems for verifying and validating environmental analytical data to ensure completeness and accuracy. Sara spent two years as a member of a software development team responsible for a database management tool for the preparation and maintenance of metadata. She is a proficient code developer in HTML, ASP, and XML and has experience working in the US EPA code, ProUCL.

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Benjing Sun brings experience in performing human health risk assessment, performance assessment, air quality modeling and permitting, fate and transport modeling, and establishment of risk-based remediation goals under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and other federal and state regulations. He has developed and applied analytical tools based on the human health risk assessment protocol (HHRAP) and risk assessment for Superfund (RAGS) for hazardous waste combustion facilities, Superfund sites, and other environmentally-impacted sites across the U.S. Benjing specializes in risk assessment for remedial investigations/feasibility studies, operation permit applications, regulatory compliance, and risk management. He conducts performance assessment and exposure dose estimation, air dispersion/deposition modeling, and vapor intrusion modeling. His experience also encompasses data evaluation, statistical analysis, and litigation support.

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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.

Terms

ATSDR	Agency for toxic substances and disease registry
CalEPA	California Environmental Protection Agency
CDI	chronic daily intake
DA_{event}	dermally absorbed dose per event
ECF	environmental calculation file
ELCR	excess lifetime cancer risk
EPA	Environmental Protection Agency
EPC	exposure point concentration
ERMA	Environmental risk management archive
ET	exposure time
GIABS	gastrointestinal absorption factor
HEAST	Health effects assessment summary tables
HEIS	Hanford environmental information system
HI	hazard index
HQ	hazard quotient
IRIS	Integrated risk information system
IUR	inhalation unit risk
MRL	minimal risk level
MTCA	Model toxics control act
NCEA	National center for environmental assessment
NJDEP	New Jersey Department of Environmental Protection
OEHHA	Office of environmental health hazard assessment
ORNL	Oak ridge national laboratory
OSWER	Office of solid waste and emergency response (EPA)
OU	Operable unit
pCi	picocurie
PPRTVs	Provisional peer reviewed toxicity values
PRB	permeable reactive barrier

RAIS	Risk assessment information system
RfC	Reference concentration
RfD	reference dose
RME	reasonable maximum exposure
RUM	Ringold Formation upper mud
UCL	upper confidence limit
VF	volatilization factor
WAC	*Washington Administrative Code*

1

1 Purpose

The purpose of this environmental calculation is to document the assumptions, equations, and methods used to calculate the potential human health risks and hazards associated with exposure to radionuclides and nonradionuclides in groundwater under a residential tap water exposure scenario. It is assumed that the source of tap water is groundwater obtained from the 100-NR-2 Groundwater Operable Unit (OU). Potential health risks and hazards are calculated for ingestion, dermal or immersion, and inhalation exposure routes associated with the tap water exposure scenario. The results of all exposure routes are summed to provide total excess lifetime cancer risk (ELCR) or hazard index (HI) from direct contact with tap water by a residential receptor. This methodology is used to calculate intake, ELCR for both radionuclide and nonradionuclide analytes, and HI for nonradionuclide analytes. For this calculation, any analyte with available toxicity values and detected at least once in groundwater at the 100-NR-2 Groundwater OU is included in the calculations. Cancer risks and noncancer hazards are calculated and presented separately for each of the 95 groundwater wells evaluated in 100-NR-2 Groundwater OU. In total, 55 monitoring wells are screened at the top of the unconfined aquifer, four are screened across full thickness of the unconfined aquifer, four were screened at the bottom of the unconfined aquifer, one well is screened in the confined aquifer, a single well is screened in the Ringold Formation upper mud (RUM), 15 PRB monitoring wells are screened below the water table, eight injection wells are screened above the water table, and seven injection wells are screened below the water table. The 95 wells are listed in Table 1-1. This risk assessment supports DOE/RL-2012-15, *Remedial Investigation/Feasibility Study for 100-NR-1 and 100-NR-2 Operable Units.*

Table 1-1. 100-NR-2 Groundwater OU Monitoring Wells by Screen Depth

Monitoring Wells Screened at the Top of the Unconfined Aquifer				
199-K-37	199-K-149	199-K-150	199-K-151	199-N-2
199-N-3	199-N-14	199-N-16	199-N-19	199-N-21
199-N-27	199-N-28	199-N-32	199-N-34	199-N-41
199-N-46	199-N-50	199-N-51	199-N-52	199-N-56
199-N-57	199-N-64	199-N-67	199-N-71	199-N-72
199-N-73	199-N-74	199-N-75	199-N-76	199-N-81
199-N-92A	199-N-99A	199-N-103A	199-N-104A	199-N-105A
199-N-106A	199-N-165	199-N-167	199-N-169	199-N-171
199-N-172	199-N-173	199-N-183	199-N-184	199-N-186
199-N-187	199-N-188	199-N-189	199-N-373	199-N-377
699-73-61	699-77-54	699-78-62	699-84-59	699-87-55
Monitoring Wells Screened Across the Entire Unconfined Aquifer				
199-N-371*	199-N-372	199-N-374	199-N-376	
Monitoring Wells Screened at the Bottom of the Unconfined Aquifer				
199-N-69	199-N-70	199-N-77	199-N-182	

Table 1-1. 100-NR-2 Groundwater OU Monitoring Wells by Screen Depth

Monitoring Well Screened in the Confined Aquifer				
199-N-80				
Monitoring Well Screened in the Ringold Upper Mud				
199-N-185				
PRB Monitoring Wells Screened Below Water Table				
199-N-346	199-N-354	199-N-355	199-N-356	199-N-357
199-N-358	199-N-359	199-N-360	199-N-361	199-N-362
199-N-363	199-N-364	199-N-365	199-N-366	199-N-367
Injection Wells Screened Above Water Table				
199-N-200	199-N-210	199-N-269	199-N-281	199-N-297
199-N-315	199-N-333	199-N-343		
Injection Wells Screened Below Water Table				
199-N-201	199-N-268	199-N-280	199-N-298	199-N-316
199-N-332	199-N-342			

2 Background

The following subsections provide brief descriptions of cancer risks and noncancer health hazards, the exposure routes included with the tap water exposure scenario, and the references used in this environmental calculation.

2.1 Carcinogenic Effects

The potential for carcinogenic effects is evaluated by estimating incremental increases in the probability of developing cancer over a lifetime (ELCR), above the background probability of developing cancer (that is, if no exposure to site contaminants occurs). Cancer slope factors developed by the U.S. Environmental Protection Agency (EPA) are considered to be plausible upper bound estimates of the cancer potencies of contaminants. Using these cancer slope factors in calculating risks results in plausible, upper-bound estimates of risk; there is reasonable confidence that the actual cancer risks will not exceed the estimated risks and may actually be lower (EPA/540/1-89/002, *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A): Interim Final*).

Although synergistic or antagonistic interactions might occur between cancer-causing contaminants and other contaminants, information is generally lacking in the toxicological literature to predict quantitatively the effects of these potential interactions. Therefore, in this assessment, cancer risks are treated as independent and additive within an exposure route. This is consistent with the EPA guidelines on chemical mixtures presented in EPA/630/P-03/001F, *Guidelines for Carcinogen Risk Assessment*.

2.2 Noncarcinogenic Effects

For noncarcinogenic effects, the likelihood that a receptor will develop an adverse effect is estimated by comparing the predicted level of exposure for a particular contaminant with the highest level of exposure that is considered protective (that is, its reference dose [RfD]). The ratio of the chronic daily intake (CDI) divided by the RfD is termed the hazard quotient (HQ).

When the HQ for a contaminant exceeds 1 (that is, exposure exceeds the RfD), there is a concern for potential noncarcinogenic health effects. To assess the potential for noncarcinogenic effects posed by exposure to multiple contaminants, an HI approach is used, in accordance with EPA guidance (EPA/540/1-89/002). This approach assumes that the noncancer hazards associated with exposure to multiple contaminants are simply additive; synergistic or antagonistic interactions between contaminants, which are largely unknown, are not accounted for.

2.3 Exposure Routes

Potentially complete exposure routes associated with the residential tap water exposure scenario are:

- Ingestion of tap water
- Inhalation of volatiles as a result of household use of tap water; and
- Dermal contact with or immersion in tap water while showering or bathing

2.4 References

For the tap water exposure scenario, contaminant intake is quantified using standard equations and procedures as specified in the following references:

- EPA/540/1-89/002, *Risk Assessment Guidance for Superfund: Volume 1—Human Health Evaluation Manual, Part A,* Interim Final;
- EPA/540/R-92/003, *Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)*: Interim;
- EPA/540/R/99/005, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment): Final*;
- EPA-540-R-070-002, *Risk Assessment Guidance for Superfund: Volume 1—Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*;
- ORNL, 2017, The Risk Assessment Information System (RAIS) (http://rais.ornl.gov/)
- RAIS Risk Exposure Models for Chemicals User's Guide (http://rais.ornl.gov/tools/rais_chemical_risk_guide.html)
- RAIS Risk Exposure Models for Radionuclides User's Guide (http://rais.ornl.gov/tools/rais_rad_risk_guide.html)

3 Methodology

This section provides the equations (and their applicable bases) used to calculate the intake, cancer risks and noncancer hazards associated with exposure to analytes in groundwater via the exposure routes associated with the tap water exposure scenario. Definitions of variables and input values for the equations are provided in Table 3-1.

Table 3-1. Summary of Exposure Assumptions Used for the Tap Water Exposure Scenario for the 100-NR-2 Groundwater Operable Unit

Exposure Factor	Symbol	Value	Units	Source
Averaging Time – Cancer Risk	AT_{can}	70	Years	EPA/540/R-92/003 (Part B) U.S. EPA 1989 (pg. 6-22) EPA/540/1-89/002 (part A)
Averaging Time – Noncancer Hazard Index	AT_{nc}	6	Years	EPA, 2011
Partitioning constant derived by Bunge Model	B	Analyte-Specific	Unitless	See Table B-1
Adult Body Weight	BW_a	80	kg	EPA/600/R-090/052F OSWER Directive 9200.1-120
Body Weight - child	BW_c	15	kg	U.S. EPA/600/R-090/052F OSWER Directive 9200.1-120
Conversion Factor	CF1	365	Days/year	1 year = 365 days
Conversion Factor	CF2	1/24	Days/hour	1 day = 24 hours
Conversion Factor	CF3	0.001	L/cm^3	1 L = 1,000 cm^3
Cancer Slope Factor - oral	CSF_o	Analyte-Specific	$(mg/kg\text{-}day)^{-1}$	See Table B-1
Chronic Daily Intake – carcinogen ingestion	CDI	Calculated value	mg/kg-day	Equation 1
Chronic Daily Intake – noncarcinogen ingestion	CDI	Calculated value	mg/kg-day	Equation 4
Chronic Daily Intake – radiological ingestion	CDI	Calculated value	pCi	Equation 6
Chronic Daily Intake – carcinogen inhalation	CDI	Calculated value	$\mu g/m^3$	Equation 9
Chronic Daily Intake – noncarcinogen inhalation	CDI	Calculated value	mg/m^3	Equation 11
Chronic Daily Intake – radiological inhalation	CDI	Calculated value	pCi	Equation 13
Chronic Daily Intake – carcinogen dermal	CDI	Calculated value	mg/kg-day	Equation 16
Chronic Daily Intake – noncarcinogen dermal	CDI	Calculated value	mg/kg-day	Equation 19

Table 3-1. Summary of Exposure Assumptions Used for the Tap Water Exposure Scenario for the 100-NR-2 Groundwater Operable Unit

Exposure Factor	Symbol	Value	Units	Source
Chronic Daily Intake – radiological immersion	CDI	Calculated value	pCi-yrs/L	Equation 25
Contaminant concentration in groundwater	C_w	Analyte-Specific	mg/L or pCi/L	ECF-100NR2-17-0006
Absorbed dose per event	DA_{event}	Calculated value	mg/cm^2-event	Equation 22, 23, and 24
Exposure Duration - resident	ED_r	26	Years	EPA/600/R-090/052F
Exposure Duration - child	ED_c	6	Year	OSWER Directive 9285.6-03
Exposure Frequency	EF	350	Days/year	OSWER 9285.6-03
Exposure Time – resident inhalation	ET_r	24	Hours/day	OSWER Directive 9200.1-120
Exposure Time – adult dermal	ET_a	0.71	Hours/day	EPA/600/R-090/052F OSWER Directive 9200.1-120
Exposure Time – child dermal	ET_c	0.54	Hours/day	EPA/600/R-090/052F OSWER Directive 9200.1-120
Age-Adjusted Exposure Time – dermal	ET_{adj}	0.671	Hours/event	Equation 21
Age-Adjusted Exposure Time – radiological immersion	ET_RAD_{adj}	17.44	Hours-year/day	Equation 26
Event frequency	EV	1	Event/day	EPA/540/R/99/005
Fraction of absorbed water	FA	Analyte-Specific	Unitless	See Table B-1
Gastrointestinal absorption factor	GIABS	Analyte-Specific	Unitless	See Table B-1
Age-Adjusted Inhalation Rate - radiological	INH_RAD_{adj}	460	m^3-year/day	Equation 14
Inhalation Rate - adult	INH_a	20	m^3/day	OSWER Directive 9285.6-03
Inhalation Rate - child	INH_c	10	m^3/day	EPA/600/P-95/002F
Water Ingestion Rate - adult	IRW_a	2.5	L/day	EPA/600/R-090/052F OSWER Directive 9200.1-120
Water Ingestion Rate - child	IRW_c	0.78	L/day	EPA/600/R-090/052F OSWER Directive 9200.1-120

Table 3-1. Summary of Exposure Assumptions Used for the Tap Water Exposure Scenario for the 100-NR-2 Groundwater Operable Unit

Exposure Factor	Symbol	Value	Units	Source
Age-adjusted Water Ingestion Rate – nonradiological	IRW_{adj}	0.937	L-year/kg-day	Equation 2
Age-adjusted Water Ingestion Rate – radiological	IRW_RAD_{adj}	54.68	L-year/day	Equation 7
Inhalation Unit Risk	IUR	Analyte-Specific	$(\mu g/m^3)^{-1}$	See Table B-1
Dermal permeability coefficient	K_p	Analyte-Specific	cm/hour	See Table B-1
The constant pi	π	3.14159	Unitless	--
Reference Concentration	RfC	Analyte-Specific	mg/m^3	See Table B-1
Oral Chronic Reference Dose	RfD_o	Analyte-Specific	mg/kg-day	See Table B-1
Age-adjusted Skin Surface Area	SA_{adj}	7,459	cm^2-year-event/kg-day	Equation 17
Skin Surface Area - adult	SA_a	19,652	cm^2	EPA/600/R-090/052F OSWER Directive 9200.1-120
Skin Surface Area - child	SA_c	6,365	cm^2	EPA/600/R-090/052F OSWER Directive 9200.1-120
Slope Factor - inhalation	SF_i	Analyte-Specific	Risk/pCi	See Table B-1
Slope Factor - oral	SF_o	Analyte-Specific	Risk/pCi	See Table B-1
Time to reach steady state conditions	t*	Analyte-Specific	Hour	See Table B-1
Lag time	τ	Analyte-Specific	Hours/event	See Table B-1
Volatilization Factor	VF	0.5	L/m^3	EPA/540/R-92/003

Table 3-1. Summary of Exposure Assumptions Used for the Tap Water Exposure Scenario for the 100-NR-2 Groundwater Operable Unit

Exposure Factor	Symbol	Value	Units	Source
ECF-100NR2-17-0006, 2017, Calculation of Exposure Point Concentrations for the 100-NR-2 Groundwater Operable Unit.				
EPA, 2011, November 2011 updates to EPA Regional Screening Level equations (http://www.epa.gov/risk/regional-screening-table-whats-new)				
EPA/540/1 89/002, Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A): Interim Final.				
EPA/540/R-92/003, Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals): Interim.				
EPA/600/R-090/052F, Exposure Factors Handbook 2011 Edition (Final).				
EPA/540/R/99/005, Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment): Final.				
OSWER Directive 9200.1-120, Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.				
OSWER Directive 9285.6-03, Risk Assessment Guidance For Superfund Volume I: Human Health Evaluation Manual Supplemental Guidance, "Standard Default Exposure Factors," Interim Final.				
EPA/600/P-95/002Fa, Exposure Factors Handbook Volume 1: General Factors.				

3.1 Intake and Risk Equations for Water Ingestion

The bases for the equations used to calculate intake, risk, and hazard associated with the water ingestion route are summarized in Table 3-2. Equations are provided in the following subsections.

Table 3-2. Calculated Values and Reference Bases Used for the Water Ingestion Exposure Route

Effect	Symbol for Calculated Value	Reference
Carcinogenic	CDI IRW_{adj}	RAIS Risk Exposure Models for Chemicals User's Guide (ORNL, 2017)
	Risk	EPA/540/R-92/003
Noncarcinogenic	CDI	RAIS Risk Exposure Models for Chemicals User's Guide (ORNL, 2017)
	HQ	EPA/540/R-92/003
Radionuclide	CDI IRW_RAD_{adj}	RAIS Risk Exposure Models for Radionuclides User's Guide (ORNL, 2017)
	Risk	EPA/540/R-92/003

Notes:

CDI= chronic daily intake

HQ= hazard quotient

IRW_{adj} = age-adjusted water ingestion rate.

Table 3-2. Calculated Values and Reference Bases Used for the Water Ingestion Exposure Route

Effect	Symbol for Calculated Value	Reference
IRW_RAD_{adj} = age-adjusted water ingestion rate for radionuclides.		
EPA/540/R-92/003, *Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals): Interim*.		
ORNL, 2017, The Risk Assessment Information System (RAIS).		

3.1.1 Ingestion of Water —Carcinogenic Effects

For ingestion of carcinogens, the CDI is calculated using the following equations:

$$CDI = \frac{C_w \times IRW_{adj} \times EF}{AT_{can} \times CF1} \tag{1}$$

where:

$$IRW_{adj} = \frac{ED_c \times IRW_c}{BW_c} + \frac{(ED_r - ED_c) \times IRW_a}{BW_a} \tag{2}$$

Cancer risk is calculated using the following equation:

$$Risk = CDI \times CSF_o \tag{3}$$

3.1.2 Ingestion of Water —Noncarcinogenic Effects

For ingestion of noncarcinogens, the CDI is calculated using the following equation:

$$CDI = \frac{C_w \times IRW_c \times EF \times ED_c}{BW_c \times AT_{nc} \times CF1} \tag{4}$$

Noncancer hazard is calculated using the following equation:

$$HQ = \frac{CDI}{RfD_o} \tag{5}$$

3.1.3 Ingestion of Water —Radionuclides

For ingestion of radionuclides, the CDI is calculated using the following equations:

$$CDI = C_W \times IRW_RAD_{adj} \times EF \tag{6}$$

where:

$$IRW_RAD_{adj} = (ED_c \times IRW_c) + ([ED_r - ED_c] \times IRW_a) \tag{7}$$

Radiological cancer risk is calculated using the following equation:

$$Risk = CDI \times SF_o \quad (8)$$

3.2 Intake and Risk Equations for Inhalation of Volatiles

The bases for the equations used to calculate intake, risk, and hazard associated with the inhalation of volatiles in tap water are summarized in Table 3-3. Equations are provided in the following subsections.

Table 3-3. Calculated Values and Reference Bases Used for the Tap Water Scenario Inhalation of Volatiles Exposure Route

Effect	Symbol for Calculated Value	Reference
Carcinogenic	CDI	RAIS Risk Exposure Models for Chemicals User's Guide (ORNL, 2017)
	Risk	EPA-540-R-070-002
Noncarcinogenic	CDI	RAIS Risk Exposure Models for Chemicals User's Guide (ORNL, 2017)
	HQ	EPA-540-R-070-002
Radionuclide	CDI INH_RAD_{adj}	RAIS Risk Exposure Models for Radionuclides User's Guide (ORNL, 2017)
	Risk	EPA/540/R-92/003

Notes:

CDI= chronic daily intake.

HQ = hazard quotient.

INH_RADadj = age-adjusted radionuclide inhalation rate.

EPA-540-R-070-002, Risk Assessment Guidance for Superfund: Volume 1—Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment).

EPA/540/R-92/003, Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals): Interim.

ORNL, 2017, The Risk Assessment Information System (RAIS).

3.2.1 Inhalation of Volatiles—Carcinogenic Effects

For inhalation of carcinogens, the CDI is calculated using the following equation:

$$CDI = \frac{C_w \times ED_r \times EF \times ET_r \times CF2 \times VF \times (1000 \mu g/mg)}{AT_{can} \times CF1} \quad (9)$$

Cancer risk is calculated with the following equation:

$$Risk = CDI \times IUR \quad (10)$$

3.2.2 Inhalation of Volatiles—Noncarcinogenic Effects

For inhalation of noncarcinogens, the CDI is calculated using the following equation:

$$CDI = \frac{C_w \times ED_c \times EF \times ET_r \times CF2 \times VF}{AT_{nc} \times CF1} \quad (11)$$

Noncancer hazard is calculated using the following equation:

$$HQ = \frac{CDI}{RfC} \quad (12)$$

3.2.3 Inhalation of Volatiles—Radionuclides

For inhalation of radionuclides, the CDI is calculated using the following equations:

$$CDI = C_w \times INH_RAD_{adj} \times VF \times EF \times ET_r \times CF2 \quad (13)$$

where:

$$INH_RAD_{adj} = (ED_c \times INH_c) + ([ED_r - ED_c] \times INH_a) \quad (14)$$

Radiological cancer risk is calculated using the following equation:

$$Risk = CDI \times SF_i \quad (15)$$

3.3 Intake and Risk Equations for Dermal Contact with and Immersion in Water

The bases for the equations used to calculate intake, risk, and hazard associated with the tap water dermal absorption exposure route are provided in Table 3-4. The equations are presented in the following subsections.

Table 3-4. Calculated Values and Reference Bases Used for the Tap Water Scenario Dermal Contact and Immersion Exposure Routes

Effect	Calculated Value	Reference
Carcinogenic	CDI	EPA/540/R/99/005
	SA_{adj}	EPA/540/R/99/005
	ET_{adj}	EPA/540/R/99/005
	DA_{event}	EPA/540/R/99/005
	Risk	EPA/540/R/99/005
Noncarcinogenic	CDI	EPA/540/R/99/005
	DA_{event}	EPA/540/R/99/005
	HQ	EPA/540/R/99/005
Radionuclide [a]	CDI ET_RAD_{adj}	RAIS Risk Exposure Models for Radionuclides User's Guide (ORNL, 2017)
	Risk	EPA/540/R-92/003

Table 3-4. Calculated Values and Reference Bases Used for the Tap Water Scenario Dermal Contact and Immersion Exposure Routes

Effect	Calculated Value	Reference

Notes:

CDI= chronic daily intake.

DAevent = absorbed dose per event.

ETadj = age-adjusted exposure time.

ET_RADadj = radiation age-adjusted exposure time

HQ = hazard quotient.

SAadj = age-adjusted skin surface area.

ORNL,2017, The Risk Assessment Information System (RAIS).

EPA/540/R/99/005, Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment): Final.

EPA/540/R-92/003, Risk Assessment Guidance for Superfund: Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals): Interim.

3.3.1 Tap Water Dermal Absorption—Carcinogenic Effects

For dermal exposure to carcinogens, the CDI is calculated using the following equations:

$$CDI = \frac{DA_{event} \times SA_{adj} \times EF}{AT_{can} \times CF1} \tag{16}$$

where:

$$SA_{adj} = \frac{ED_c \times SA_c \times EV}{BW_c} + \frac{(ED_r - ED_c) \times SA_a \times EV}{BW_a} \tag{17}$$

Cancer risk is calculated using the following equation:

$$Risk = CDI \times \frac{CSF_o}{GIABS} \tag{18}$$

3.3.2 Tap Water Dermal Absorption—Noncarcinogenic Effects

For dermal exposure to noncarcinogens, the CDI is calculated using the following equation:

$$CDI = \frac{DA_{event} \times SA_c \times EF \times ED_c \times EV}{BW_c \times AT_{nc} \times CF1} \tag{19}$$

Noncancer hazard is calculated using the following equation:

$$HQ = \frac{CDI}{RfD_o \times GIABS} \tag{20}$$

3.3.3 Tap Water Dermal Absorption—Exposure Time (Carcinogenic Effects and Noncarcinogenic Effects)

The exposure time used in the risk calculations is health effect-dependent. For noncarcinogens, the exposure time is not age-adjusted ($ET = ET_c$). For carcinogens, an age-adjusted exposure time is calculated using the following equation:

$$ET_{adj} = \frac{(ED_c \times ET_c) + ([ED_r - ED_c] \times ET_a)}{ED_r} \tag{21}$$

3.3.4 Tap Water Dermal Absorption—Dermally Absorbed Dose (Carcinogenic Effects and Noncarcinogenic Effects)

For organics, the following equations are used to calculate the dermally absorbed dose per event (DA_{event}), using the child exposure time for noncarcinogenic effects and the age-adjusted exposure time (as calculated above) for carcinogenic effects:

If ET ≤ t*, the following nonsteady-state equation is used:

$$DA_{event} = 2 \times FA \times K_p \times C_w \times CF3 \times \sqrt{\frac{6 \times \tau \times ET}{\pi}} \tag{22}$$

If ET > t*, the following pseudosteady-state equation is used:

$$DA_{event} = FA \times K_p \times C_w \times CF3 \times \left[\frac{ET}{1+B} + 2 \times \tau \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right] \tag{23}$$

where:

$ET = ET_c$ *or* ET_{adj}, for noncarcinogenic and carcinogenic effects, respectively.

For inorganics, the following steady-state equation is used to estimate DA_{event}:

$$DA_{event} = K_p \times C_w \times ET \times CF3 \tag{24}$$

where:
$ET = ET_c$ *or* ET_{adj}, for noncarcinogenic and carcinogenic effects, respectively.

3.3.5 Tap Water Immersion—Radionuclides

For exposure to radionuclides via the immersion pathway, the CDI is calculated using the following equation:

$$CDI = \frac{C_w \times ET_RAD_{adj} \times EF}{CF4} \tag{25}$$

where:

$$ET_RAD_{adj} = (ED_c \times ET_c \times EV) + ([ED_r - ED_c] \times ET_a \times EV) \quad (26)$$

Cancer risk is calculated using the following equation:

$$Risk = CDI \times SF_{imm} \quad (27)$$

3.4 Cumulative Risk—Cancer

For estimating the cancer risks from exposure to multiple carcinogens from a single exposure route, the following equation is used. The basis for the equation is provided in EPA/540/1-89/002.

$$Risk_T = \sum_1^N Risk_i \quad (28)$$

where:

$Risk_T$	=	Total cancer risk from route of exposure
$Risk_i$	=	Cancer risk for the ith chemical
N	=	Number of chemicals

3.5 Hazard Index—Noncancer

The HI is calculated using the following equation. The basis for the equation is provided in EPA/540/1-89/002.

$$HI = \sum_1^N \left(\frac{CDI_i}{RfD_i}\right) \quad (29)$$

where:

HI	=	hazard index
CDI_i	=	chronic daily intake of the ith chemical (mg/kg-day)
RfD_i	=	reference dose of the ith chemical (mg/kg-day)
N	=	number of chemicals

4 Assumptions and Inputs

Assumptions and inputs associated with the tap water exposure scenario, the human health toxicity values used to characterize risk and hazards, and the groundwater analytes and associated exposure point concentrations (EPCs) are described below.

4.1 Exposure Inputs and Assumptions

- Exposure routes evaluated for the tap water exposure scenario are ingestion, inhalation, dermal contact with water (for nonradionuclides), and immersion in water (for radionuclides).
- Exposure assumptions for the tap water exposure scenario are consistent with EPA guidance and provide a reasonable maximum exposure (RME) estimate as defined in OSWER Directive 9285.6-03, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual Supplemental Guidance, "Standard Default Exposure Factors"*.

- RME assumptions used to quantify contaminant intake (CDI) for the tap water exposure scenario are provided in Table 3-1.
- For domestic use of groundwater as a drinking water supply, EPA considers the inhalation pathway potentially complete only for volatile contaminants because there is no mechanism for release of nonvolatile chemicals into the air in significant concentrations (EPA/540/R-92/003). For the tap water exposure scenario, inhalation intake is quantified only for volatile contaminants as defined in the downloadable table "Summary Table," dated June, 2017, available online at EPA, 2017b, "Regional Screening Levels for Chemical Contaminants at Superfund Sites" website (http://www.epa.gov/risk/regional-screening-table).
- For the RME residential scenario, the EPA-recommended values for showering/bathing exposure times for dermal exposure to tap water are 0.71 hours for an adult and 0.54 hours for a child (EPA/600/R-090/052F). Exposure times for inhalation of volatiles in water is assumed to be 24 hours per day.

4.2 Groundwater Analytes and Exposure Point Concentrations

The analytes evaluated in this environmental calculation were obtained from the 100-NR-2 Groundwater OU analytical data set in the Hanford Environmental Information System (HEIS) database. The data set was first processed and reduced as described in ECF-100NR2-17-0006, *Calculation of Exposure Point Concentrations for the 100-NR-2 Groundwater Operable Unit*.

Following the data processing and reduction, any analyte with at least one reported detection and available toxicity values was included in the risk and hazards calculations.

The EPCs used for the risk calculations are the analyte-specific 95 percent upper confidence limit (UCL) or ProUCL values calculated from the analytical data set, as described in ECF-100NR2-17-0006. The identified analytes and their associated EPCs are presented in Appendix A, Table A-1 for the 95 wells evaluated in the 100-NR-2 Groundwater OU.

4.3 Toxicity Values

The toxicity criteria used for the human health risk calculations are provided in Appendix B, Table B-1. The sources for these criteria are discussed below.

4.3.1 Toxicity Values for Nonradionuclides

For nonradionuclides, the analyte-specific toxicity values shown in Appendix B, Table B-1are determined using the recommended reference hierarchy as described in Cook, 2003, "Human Health Toxicity Values in Superfund Risk Assessments." The hierarchy is summarized below.

- Tier 1 – The EPA Integrated Risk Information System (IRIS)
- Tier 2 – The EPA Provisional Peer Reviewed Toxicity Values (PPRTVs)
- Tier 3 – Other Toxicity Values

Tier 1 – IRIS

The preferred source of toxicity data is the EPA IRIS database (http://www.epa.gov/iris/index.html). Expert toxicologists at EPA have derived the values in this database and have undergone a thorough review and validation both within and outside EPA. If a toxicity value is available in IRIS, that value is used in preference to any other value.

Tier 2 – PPRTVs

If a toxicity value is not available in IRIS, the next source is the EPA PPRTVs. This source includes toxicity values that have been developed by the Office of Research and Development/National Center for Environmental Assessment/Superfund Health Risk Technical Support Center. This database is not available to the general public but is accessible to EPA risk assessors via the EPA intranet. These values are also published at the EPA Regional Screening Levels website (EPA, 2017b).

Tier 3 – Other Toxicity Values

Tier 3 includes additional EPA and non-EPA sources of toxicity information, including:

- The California EPA (CalEPA) Toxicity Criteria Database contains toxicity values that are peer reviewed and address both carcinogenic and noncarcinogenic effects.
- The Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazard Substances are peer-reviewed estimates of the daily human exposure to hazardous substances that is likely to be without appreciable risk of adverse noncarcinogenic health effects over a specified duration of exposure.

When Tier 1, Tier 2, or Tier 3 toxicity values are not available for an analyte, the toxicity values from the National Center for Environmental Assessment (NCEA) are used. The NCEA values can be found in "Chemical Toxicity Values" at the RAIS (ORNL, 2017).

For this environmental calculation, nitrate and nitrite toxicity values required conversion to a different concentration basis as follows:

- **Nitrate**. A derived RfD for nitrate (NO_3^-) was calculated from the RfD reported in IRIS, which is given as 1.6 mg/kg-day for *nitrate as nitrogen* (NO_3^- as N). Conversion from *nitrate as nitrogen* to *nitrate* was made using the mass fraction of nitrogen in nitrate. The mass fraction of nitrogen in nitrate = mol wt N/mol wt NO_3^- = (14 g/mol)/(62 g/mol) = 0.226. The derived RfD for *nitrate* = (1.6 mg NO_3^- as N/kg-day) x (1 mg NO_3^-/0.226 mg NO_3^- as N) = 7.1 mg NO_3^-/kg-day.
- **Nitrite**. A derived RfD for nitrate (NO_2^-) was calculated from the RfD reported in IRIS, which is given as 0.1 mg/kg-day for *nitrite as nitrogen* (NO_2^- as N). Conversion from *nitrite as nitrogen* to *nitrite* was made using the mass fraction of nitrogen in nitrite. The mass fraction of nitrogen in nitrite = mol wt N/mol wt NO_2^- = (14 g/mol)/(46 g/mol) = 0.304. The derived RfD for *nitrite* = (0.1 mg NO_2^- as N/kg-day) × (1 mg NO_2^-/0.304 mg NO_2^- as N) = 0.3 mg NO_2^-/kg-day.

For the following nonradionuclide analytes, the toxicity value used is not consistent with the values documented in EPA 2017a. The differences in toxicity values are summarized below.

The oral RfD that is published in IRIS (0.003 mg/kg-day) was used to calculate noncancer hazards for uranium in this ECF. An oral reference dose of 0.0002 mg/kg-day is published in the memorandum dated December 21, 2016, *Considering a Noncancer Oral Reference Dose for Uranium for Superfund Human Health Risk Assessments*. The oral reference dose recommended in this memorandum was not used to estimate noncancer hazards for uranium because it is not published in IRIS and a maximum contaminant level based on this value has not been promulgated. As such, the RfD value of 0.0002 mg/kg-day was not used in this ECF.

For hexavalent chromium, the current assessment does not consider carcinogenic effects. An oral cancer slope factor has been published by the New Jersey Department of Environmental Protection (NJDEP). The oral cancer slope factor derived by NJDEP is 0.5 $(mg/kg\text{-}day)^{-1}$, as presented in NJDEP, 2009, *Derivation of an Ingestion-Based Soil Remediation Criterion for Cr+6 Based on the NTP Chronic*

Bioassay Data for Sodium Dichromate Dihydrate. Not assessing carcinogenic effects from hexavalent chromium has the potential to under-estimate cancer risk.

4.3.2 Toxicity Values for Radionuclides

The radionuclide-specific cancer slope factors were obtained from "Preliminary Remediation Goals for Radionuclides (PRG)", PRG Download, "Resident Tapwater Table", dated November, 2014 (EPA, 2017a). For each radionuclide listed, slope factors correspond to the risks per unit intake or exposure for that radionuclide only, except when marked with a "+D" (cesium-137, neptunium-237, radium-228, strontium-90, uranium-235, and uranium-238) to indicate that the risks from associated short-lived radioactive daughter products (i.e., those daughter products with radioactive half-lives less than or equal to 6 months) are also included. The intention of this designation is to make realistic risk estimates by including the contributions from their short-lived daughter products, assuming equal activity concentrations (i.e., secular equilibrium) with the principal or parent nuclide in the environment.

5 Software Applications

The approved software application POSTAL v3.0 is the primary software program used for calculations reported in this document. The required information about POSTAL v3.0 is provided in this section.

5.1 POSTAL Description

The following presents the description of POSTAL used for this report. See CHPRC-03486, *POSTAL Software Management Plan, Rev. 0* for further details regarding the use of this software.

- Software Title: POSTAL
- Software Version: 3.0
- HISI Identification Number: 4198

Workstation type and description (from which software is run): POSTAL was executed on a Lenovo ThinkPad computer (property tag INTERA-00798) running Windows 10. Computer details are:

- Intel® Core™[1] i7-6600U CPU @ 2.60GHz
- 16 GB RAM
- Windows®[2] 10 Pro 64-bit Operating System

Additional workstation type and description: POSTAL was executed on a Lenovo ThinkPad computer (property tag INTERA-00707) running Windows 10. Computer details are:

- Intel® Core™ i7-4600U CPU @ 2.10GHz
- 8 GB RAM
- Windows® 10 Pro 64-bit Operating System

5.1.1 Software Installation and Checkout

The software installation and checkout forms for POSTAL v3.0 are attached to this document.

[1] A trademark of Intel Corporation, Santa Clara, California.
[2] A trademark of Microsoft Corporation, Redmond, Washington.

5.1.2 Statement of Valid Software Installation

The following presents the statement that POSTAL v3.0 is a valid software application.

- POSTAL was developed by INTERA, Inc., to provide automated execution of ProUCL and automated generation of UCL-, EPC- and risk tables in support of risk assessment activities.
- Acceptance tests were performed that demonstrated POSTAL correctly controlled the execution of ProUCL v5.1 and built UCL-95 and EPC tables from the ProUCL output and established EPC selection rules.
- POSTAL as it has been used in this activity has been implemented within the range of its limitations.

6 Calculation

6.1 Tap Water Exposure Scenario Results

Cancer risks and noncancer hazards for groundwater wells using the methodologies presented in Section 3, and the inputs and assumptions described in Section 4. Results for each groundwater well are summarized in the text and tables presented in Section 7. The input files used with and the output files generated by POSTAL are archived in the ERMA under this ECF number.

6.2 Verification of Risk and Hazard Calculations

Verification of the tap water risk assessment calculations were performed by comparing the POSTAL v3.0-generated results against results independently generated by a GoldSIM model of the tap water risk assessment calculations. The comparisons were verified to ensure any discrepancies were within acceptable limits. Additionally, POSTAL results were generated and compared against results generated by Excel®[3] spreadsheets and results generated by hand calculations for a selected subset of wells and analytes. The verification of the calculations is documented in the software quality assurance documentation for POSTAL v3.0.

7 Results/Conclusions

This section summarizes the risk assessment results for the tap water exposure scenario for the 100-NR-2 Groundwater OU. Exposure to groundwater as a tap water source is evaluated using the following potential exposure routes: ingestion, dermal contact (nonradionuclides) and immersion (radionuclides), and inhalation of volatiles under a residential exposure scenario. Tables 7-1 through 7-95 provide a summary of the cancer risk and noncancer hazard estimates by exposure route for each well evaluated in the 100-NR-2 Groundwater OU.

Table 7-96 provides a summary of the risk and hazard estimates by exposure route for dataset consisting of all wells evaluated in the 100-NR-2 Groundwater OU. It is noted that the risk and hazard estimates for this dataset is provided for comparison to the Native American exposure scenarios only.

[3] A trademark of Microsoft Corporation, Redmond, Washington.

7.1 Wells Screened at the Top of the Unconfined Aquifer

Fifty-five monitoring wells are screened at the top of the unconfined aquifer. A summary of the cancer risks and noncancer hazards by exposure route for each of the individual wells follows.

Well 199-K-37. Table 7-1 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-K-37.

Table 7-1. Summary of Cancer Risks and Noncancer Hazards for Well 199-K-37 – Monitoring Wells Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.80	--
	Dermal Contact	--		0.17	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.97
Radionuclides	Ingestion	7.2×10^{-6}		--	
	Immersion	1.3×10^{-13}			
	Inhalation of Volatiles	2.0×10^{-5}			
	Total Risk	**2.8×10^{-5}**			
Total Cumulative ELCR		**2.8×10^{-5}**			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-K-37 is 2.8×10^{-5}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.8×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-K-37 is 0.97, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-K-149. Table 7-2 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-K-149.

Table 7-2. Summary of Cancer Risks and Noncancer Hazards for Well 199-K-149 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Carbon-14 (ELCR = 7.0×10^{-4}, 84%) Tritium (ELCR = 1.4×10^{-4}, 16%)	0.72	--
	Dermal Contact	--		0.06	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.78
Radionuclides	Ingestion	1.7×10^{-5}		--	
	Immersion	2.0×10^{-14}			
	Inhalation of Volatiles	8.2×10^{-4}			
	Total Risk	8.4×10^{-4}			
Total Cumulative ELCR		8.4×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-K-149 is 8.4×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 8.4×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are carbon-14 (ELCR = 7.0×10^{-4}, 84 percent contribution) and tritium (ELCR = 1.4×10^{-4}, 16 percent contribution).

The HI for well 199-K-149 is 0.78, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-K-150. Table 7-3 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-K-150.

Table 7-3. Summary of Cancer Risks and Noncancer Hazards for Well 199-K-150 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	8.6×10^{-5}	Arsenic (ELCR = 8.7×10^{-5}, 29%) Tritium (ELCR = 1.3×10^{-4}, 44%)	4.8	Arsenic (HQ = 0.75, 15%) Fluoride (HQ = 0.20, 4.2%) Nitrate (HQ = 0.10, 1.9%) Thallium (HQ = 3.4, 68%) Vanadium (HQ = 0.19, 3.8%)
	Dermal Contact	4.6×10^{-7}		0.06	
	Inhalation of Volatiles	--		--	
	Total Risk	8.7×10^{-5}		Total HI	4.9
Radionuclides	Ingestion	3.6×10^{-6}		--	
	Immersion	2.4×10^{-15}			
	Inhalation of Volatiles	2.1×10^{-4}			
	Total Risk	2.2×10^{-4}			
Total Cumulative ELCR		3.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-K-150 is 3.0×10^{-4}. The total ELCR for nonradiological analytes is 8.7×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.2×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 1.3×10^{-4}, 44 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 8.7×10^{-5}, 29 percent contribution) where the EPC (4.5 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-K-150 when contribution from arsenic is not included.

The HI for well 199-K-150 is 4.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.75, 15 percent contribution), fluoride (HQ = 0.20, 4.2 percent contribution), nitrate (HQ = 0.10, 1.9 percent contribution), thallium (HQ = 3.4, 68 percent contribution), and vanadium (HQ = 0.19, 3.8 percent contribution). Contribution to HI is elevated for thallium (HQ = 3.4) where the EPC (0.67 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-K-150 without contribution from arsenic and thallium is 0.49, which is less than the target HI of 1.

Well 199-K-151. Table 7-4 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-K-151.

Table 7-4. Summary of Cancer Risks and Noncancer Hazards for Well 199-K-151 – Monitoring Wells Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.0×10^{-4}	Arsenic, (ELCR = 1.0×10^{-4}, 31%) Chloroform, (ELCR = 2.3×10^{-5}, 6.8%) Tritium, (ELCR = 1.7×10^{-4}, 51%)	1.8	Arsenic, (HQ = 0.87, 45%) Fluoride, (HQ = 0.28, 14%) Hexavalent Chromium, (HQ = 0.10, 5.3%) Nitrate, (HQ = 0.10, 5.4%) Vanadium, (HQ = 0.21, 11%)
	Dermal Contact	7.0×10^{-7}		0.08	
	Inhalation of Volatiles	2.0×10^{-5}		0.02	
	Total Risk	1.2×10^{-4}		Total HI	1.9
Radionuclides	Ingestion	7.9×10^{-6}		--	
	Immersion	9.6×10^{-14}			
	Inhalation of Volatiles	2.0×10^{-4}			
	Total Risk	2.1×10^{-4}			
Total Cumulative ELCR		3.3×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-K-151 is 3.3×10^{-4}. The total ELCR for nonradiological analytes is 1.2×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.1×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 2.2×10^{-5}, 6.8 percent contribution) and tritium (ELCR = 1.7×10^{-4}, 51 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.0×10^{-4}, 31 percent contribution) where the EPC (5.2 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-K-151 without contribution from arsenic is 2.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-K-151 is 1.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.87, 45 percent contribution), fluoride (HQ = 0.28, 14 percent contribution), hexavalent chromium (HQ = 0.10, 5.3 percent contribution), nitrate (HQ = 0.10, 5.4 percent contribution), and vanadium (HQ = 0.21, 11 percent contribution). The HI for well 199-K-151 without contribution from arsenic is 1.1, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.1 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-2. Table 7-5 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-2.

Table 7-5. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-2 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Carbon-14, (ELCR = 5.0×10^{-4}, 12%) Strontium-90, (ELCR = 3.3×10^{-3}, 79%) Tritium, (ELCR = 4.0×10^{-4}, 9.4%)	4.4	Nitrate, (HQ = 1.1, 24%) Thallium, (HQ = 3.0, 69%)
	Dermal Contact	--		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	4.4
Radionuclides	Ingestion	3.3×10^{-3}		--	
	Immersion	6.5×10^{-11}			
	Inhalation of Volatiles	8.8×10^{-4}			
	Total Risk	4.2×10^{-3}			
Total Cumulative ELCR		4.2×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-2 is 4.2×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 4.2×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are carbon-14 (ELCR = 5.0×10^{-4}, 12 percent contribution), strontium-90 (ELCR = 3.3×10^{-3}, 79 percent contribution), and tritium (ELCR = 4.0×10^{-4}, 9.4 percent contribution).

The HI for well 199-N-2 is 4.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are nitrate (HQ = 1.1, 24 percent

contribution), and thallium (HQ = 3.0, 69 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.60 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-2 without contribution from thallium is 1.1, which is greater than the target HI of 1

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Nitrate: Early clinical signs of methemoglobinemia

Nitrate has an HQ of 1.1, which is greater than the than the target HI of 1.

Well 199-N-3. Table 7-6 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-3.

Table 7-6. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-3 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.4×10^{-5}	Arsenic, (ELCR = 3.4×10^{-5}, 1.9%) Chloroform, (ELCR = 5.6×10^{-6}, 0.32%) Strontium-90, (ELCR = 1.4×10^{-3}, 80%) Tritium, (ELCR = 3.1×10^{-4}, 18%)	1.6	Arsenic, (HQ = 0.29, 18%) Manganese, (HQ = 0.11, 6.8%) Nitrate, (HQ = 0.68, 42%) Nitrite, (HQ = 0.10, 6.5%) Uranium, (HQ = 0.10, 6.2%)
	Dermal Contact	2.3×10^{-7}		0.03	
	Inhalation of Volatiles	5.1×10^{-6}		0.01	
	Total Risk	4.0×10^{-5}		Total HI	1.6
Radionuclides	Ingestion	1.4×10^{-3}		--	
	Immersion	2.7×10^{-11}			
	Inhalation of Volatiles	3.0×10^{-4}			
	Total Risk	1.7×10^{-3}			
Total Cumulative ELCR		1.8×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-3 is 1.8×10^{-3}. The total ELCR for nonradiological analytes is 4.0×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.7×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 5.6×10^{-6}, 0.32 percent contribution), strontium-90 (ELCR = 1.4×10^{-3}, 80 percent contribution), and tritium (ELCR = 3.1×10^{-4},

18 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.4×10^{-5}, 1.9 percent contribution) where the EPC (1.8 µg/L) is less than the 90th percentile background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-3 without contribution from arsenic is 5.7×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-3 is 1.6, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.29, 18 percent contribution), manganese (HQ = 0.11, 6.8 percent contribution), nitrate (HQ = 0.68, 42 percent contribution), nitrite (HQ = 0.10, 6.5 percent contribution), and uranium (HQ = 0.10, 6.2 percent contribution). The HI for well 199-N-3 without contribution from arsenic is 1.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Manganese: nervous system effects
- Nitrate: early clinical signs of methemoglobinemia
- Nitrite: early clinical signs of methemoglobinemia
- Uranium: initial body weight loss and moderate nephrotoxicity

With the exception of nitrite and nitrate, exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for nitrite and nitrate results in an HI of 0.78, which is less than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-14. Table 7-7 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-14.

Table 7-7. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-14 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.2×10^{-5}	Arsenic, (ELCR = 3.2×10^{-5}, 1.2%) Strontium-90, (ELCR = 1.9×10^{-3}, 71%) Tritium, (ELCR = 7.5×10^{-4}, 28%)	4.9	Arsenic, (HQ = 0.28, 5.6%) Nitrate, (HQ = 0.36, 7.3%) Thallium, (HQ = 4.0, 81%)
	Dermal Contact	1.7×10^{-7}		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	3.2×10^{-5}		Total HI	5.0
Radionuclides	Ingestion	1.9×10^{-3}		--	
	Immersion	3.7×10^{-11}			
	Inhalation of Volatiles	7.4×10^{-4}			
	Total Risk	2.6×10^{-3}			

Table 7-7. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-14 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		2.6×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-14 is 2.6×10^{-3}. The total ELCR for nonradiological analytes is 3.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.6×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.9×10^{-3}, 71 percent contribution) and tritium (ELCR = 7.5×10^{-4}, 28 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.2×10^{-5}, 1.2 percent contribution) where the EPC (1.7 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-14 when contribution from arsenic is not included.

The HI for well 199-N-14 is 5.0, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.28, 5.6 percent contribution), nitrate (HQ = 0.36, 7.3 percent contribution), and thallium (HQ = 4.0, 81 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.80 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-14 without contribution from arsenic and thallium is 0.72, which is less than the target HI of 1.

Well 199-N-16. Table 7-8 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-16.

Table 7-8. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-16 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.4×10^{-5}	Arsenic, (ELCR = 1.1×10^{-5}, 8.0%) Benzo(a)pyrene, (ELCR = 7.4×10^{-5}, 55%)	4.1	Benzo(a)pyrene, (HQ = 0.88, 17%) Cadmium, (HQ = 2.9, 56%) Cobalt, (HQ = 0.21, 4.1%) Manganese, (HQ = 0.63, 12%) Nickel, (HQ = 0.15, 2.8%) Nitrate, (HQ = 0.17, 3.2%)
	Dermal Contact	7.0×10^{-5}		1.1	
	Inhalation of Volatiles	--		--	
	Total Risk	8.4×10^{-5}		Total HI	5.2
Radionuclides	Ingestion	8.0×10^{-7}		--	
	Immersion	4.3×10^{-16}			

Table 7-8. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-16 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	4.9×10^{-5}			
	Total Risk	5.0×10^{-5}			
Total Cumulative ELCR		1.3×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-16 is 1.3×10^{-4}. The total ELCR for nonradiological analytes is 8.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 5.0×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributors to the total cumulative ELCR are benzo(a)pyrene (ELCR = 7.4×10^{-5}, 55 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.1×10^{-5}, 8.0 percent contribution) where the EPC (0.55 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-16 without contribution from arsenic is 7.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-16 is 5.2, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are benzo(a)pyrene (HQ = 0.88, 17 percent contribution), cadmium (HQ = 2.9, 56 percent contribution), cobalt (HQ = 0.21, 4.1 percent contribution), manganese (HQ = 0.63, 12 percent contribution), nickel (HQ = 0.15, 2.8 percent contribution), and nitrate (HQ = 0.17, 3.2 percent contribution). The HI for well 199-N-16 without contribution from arsenic is 5.1, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Benzo(a)pyrene: neurobehavioral changes, decreased thymus weight and serum IgM, and decreased ovarian follicles and ovary weight
- Cadmium: significant proteinuria
- Cobalt: thyroid, decreased iodine uptake
- Manganese: nervous system effects
- Nickel: decreased body and organ weights
- Nitrate: early clinical signs of methemoglobinemia

With the exception of cadmium, benzo(a)pyrene, and manganese, exposure to each of the analytes that contribute to the HI of 1 results in a different critical effect. Combining the HQs for benzo(a)pyrene and manganese results in an HI of 1.5, which is greater than the target HI of 1. Cadmium has an HQ of 2.9, which is greater than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1.

Well 199-N-19. Table 7-9 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-19.

Table 7-9. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-19 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	4.6×10^{-5}	Arsenic, (ELCR = 4.5×10^{-5}, 28%) Chloroform, (ELCR = 8.9×10^{-6}, 5.6%) Dibenz[a,h]anthracene, (ELCR = 1.2×10^{-5}, 7.5%)	6.0	Arsenic, (HQ = 0.39, 6.5%) Fluoride, (HQ = 0.15, 2.4%) Lithium, (HQ = 0.13, 2.1%) Nitrate, (HQ = 0.60, 9.9%) Thallium, (HQ = 4.3, 71%) Uranium, (HQ = 0.10, 1.7%)
	Dermal Contact	1.2×10^{-5}		0.04	
	Inhalation of Volatiles	8.2×10^{-6}		0.02	
	Total Risk	6.6×10^{-5}		Total HI	6.0
Radionuclides	Ingestion	3.3×10^{-5}		--	
	Immersion	6.4×10^{-13}			
	Inhalation of Volatiles	5.9×10^{-5}			
	Total Risk	9.3×10^{-5}			
Total Cumulative ELCR		1.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-19 is 1.6×10^{-4}. The total ELCR for nonradiological analytes is 6.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.3×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 8.9×10^{-6}, 5.6 percent contribution) and dibenz[a,h]anthracene (ELCR = 1.2×10^{-5}, 7.5 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 4.5×10^{-5}, 28 percent contribution) where the EPC (2.3 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-19 without contribution from arsenic is 2.1×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

Dibenz(a,h)anthracene result reported for Well 199-N-19 was qualified by the laboratory with a “B” flag indicating that this analyte was also detected in the associated method blank. As a result, dibenz(a,h)anthracene is not retained as a COPC because its presence is the result of laboratory contamination.

The HI for well 199-N-19 is 6.0, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.39, 6.5 percent contribution), fluoride (HQ = 0.15, 2.4 percent contribution), lithium (HQ = 0.13, 2.1 percent contribution), nitrate (HQ = 0.60, 9.9 percent contribution), thallium (HQ = 4.3, 71 percent contribution), and uranium (HQ = 0.10, 1.7 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.85 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-19 without contribution from arsenic and thallium is 0.72, which is less than the target HI of 1.

Well 199-N-21. Table 7-10 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-21.

Table 7-10. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-21 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	9.7×10^{-5}	Arsenic, (ELCR = 9.5×10^{-5}, 49%) Chloroform, (ELCR = 2.1×10^{-5}, 11%)	2.1	Arsenic, (HQ = 0.82, 39%) Fluoride, (HQ = 0.39, 18%) Nitrate, (HQ = 0.50, 23%) Vanadium, (HQ = 0.13, 6.3%)
	Dermal Contact	6.7×10^{-7}		0.03	
	Inhalation of Volatiles	1.9×10^{-5}		0.02	
	Total Risk	1.2×10^{-4}		Total HI	2.1
Radionuclides	Ingestion	3.5×10^{-6}		--	
	Immersion	4.8×10^{-14}			
	Inhalation of Volatiles	7.6×10^{-5}			
	Total Risk	7.9×10^{-5}			
Total Cumulative ELCR		2.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-21 is 2.0×10^{-4}. The total ELCR for nonradiological analytes is 1.2×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 7.9×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 2.1×10^{-5}, 11 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 9.5×10^{-5}, 49 percent contribution) where the EPC (4.9 µg/L) is less than the 90th percentile background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-21 without contribution from arsenic is 2.1×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-21 is 2.1, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.82, 39 percent contribution), fluoride (HQ = 0.39, 18 percent contribution), nitrate (HQ = 0.50, 23 percent contribution), and vanadium (HQ = 0.13, 6.3 percent contribution). The HI for well 199-N-21 without contribution from arsenic is 1.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: Objectionable dental fluorosis, a cosmetic effect
- Nitrate: Early clinical signs of methemoglobinemia
- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-27. Table 7-11 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-27.

Table 7-11. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-27 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.9×10^{-5}	Arsenic, (ELCR = 7.9×10^{-5}, 10%) Strontium-90, (ELCR = 2.5×10^{-4}, 31%) Tritium, (ELCR = 4.7×10^{-4}, 59%)	1.5	Arsenic, (HQ = 0.68, 46%) Fluoride, (HQ = 0.17, 11%) Nitrate, (HQ = 0.31, 21%) Vanadium, (HQ = 0.16, 11%)
	Dermal Contact	4.2×10^{-7}		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	7.9×10^{-5}		Total HI	1.5
Radionuclides	Ingestion	2.6×10^{-4}		--	
	Immersion	4.9×10^{-12}			
	Inhalation of Volatiles	4.6×10^{-4}			
	Total Risk	7.2×10^{-4}			
Total Cumulative ELCR		8.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-27 is 8.0×10^{-4}. The total ELCR for nonradiological analytes is 7.9×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 7.2×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 2.5 x 10^{-4}, 31 percent contribution) and tritium (ELCR = 4.7 x 10^{-4}, 59 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 7.9 x 10^{-5}, 10 percent contribution) where the EPC (4.1 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-27 when contribution from arsenic is not included.

The HI for well 199-N-27 is 1.5, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.68, 46 percent contribution), fluoride (HQ = 0.17, 11 percent contribution), nitrate (HQ = 0.31, 21 percent contribution), and vanadium (HQ = 0.16, 11 percent contribution). The HI for well 199-N-27 without contribution from arsenic is 0.81, which is less than the target HI of 1.

Well 199-N-28. Table 7-12 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-28.

Table 7-12. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-28 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	8.8 x 10^{-5}	Arsenic, (ELCR = 8.8 x 10^{-5}, 6.9%) Carbon-14, (ELCR = 3.6 x 10^{-4}, 28%) Tritium, (ELCR = 7.9 x 10^{-4}, 61%)	1.5	Arsenic, (HQ = 0.76, 51%) Fluoride, (HQ = 0.11, 7.5%) Nitrate, (HQ = 0.34, 22%) Vanadium, (HQ = 0.17, 11%)
	Dermal Contact	4.7 x 10^{-7}		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	8.8 x 10^{-5}		Total HI	1.5
Radionuclides	Ingestion	7.0 x 10^{-5}		--	
	Immersion	1.1 x 10^{-12}			
	Inhalation of Volatiles	1.1 x 10^{-3}			
	Total Risk	1.2 x 10^{-3}			
Total Cumulative ELCR		1.3 x 10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-28 is 1.3 × 10^{-3}. The total ELCR for nonradiological analytes is 8.8 × 10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1 × 10^{-5}. The total ELCR for radiological analytes is 1.2 × 10^{-3}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributors to the total cumulative ELCR are carbon-14 (ELCR = 3.6 x 10^{-4}, 28 percent contribution) and tritium (ELCR = 7.9 x 10^{-4}, 61 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 8.8 x 10^{-5}, 6.9 percent contribution) where the EPC (4.6 µg/L) is less than the 90th

percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-28 when contribution from arsenic is not included.

The HI for well 199-N-28 is 1.5, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.76, 51 percent contribution), fluoride (HQ = 0.11, 7.5 percent contribution), nitrate (HQ = 0.34, 22 percent contribution), and vanadium (HQ = 0.17, 11 percent contribution). The HI for well 199-N-28 without contribution from arsenic is 0.74, which is less than the target HI of 1.

Well 199-N-32. Table 7-13 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-32.

Table 7-13. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-32 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.9×10^{-5}	Arsenic, (ELCR = 7.9×10^{-5}, 7.2%) Tritium, (ELCR = 1.0×10^{-3}, 93%)	1.8	Arsenic, (HQ = 0.68, 37%) Manganese, (HQ = 0.10, 5.5%) Nitrate, (HQ = 0.55, 30%) Vanadium, (HQ = 0.12, 6.2%)
	Dermal Contact	4.2×10^{-7}		0.04	
	Inhalation of Volatiles	--		--	
	Total Risk	7.9×10^{-5}		Total HI	1.9
Radionuclides	Ingestion	1.4×10^{-5}		--	
	Immersion	--			
	Inhalation of Volatiles	1.0×10^{-3}			
	Total Risk	1.0×10^{-3}			
Total Cumulative ELCR		1.1×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-32 is 1.1×10^{-3}. The total ELCR for nonradiological analytes is 7.9×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.0×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 1.0×10^{-3}, 93 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 7.9×10^{-5}, 7.2 percent contribution) where the EPC (4.1 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-32 when contribution from arsenic is not included.

The HI for well 199-N-32 is 1.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.68, 37 percent contribution), manganese (HQ = 0.10, 5.5 percent contribution), nitrate (HQ = 0.55, 30 percent contribution), and vanadium (HQ = 0.12, 6.2 percent contribution). The HI for well 199-N-32 without contribution from arsenic is 1.2, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Manganese: Nervous system effects
- Nitrate: Early clinical signs of methemoglobinemia
- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.2 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-34. Table 7-14 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-34.

Table 7-14. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-34 – Monitoring Well Screened at the Top of the Unconfined Aquifer

<table>
<tr><th>Analyte Group</th><th>Exposure Route</th><th>ELCR</th><th>% Risk Contribution</th><th>HI</th><th>% HI Contribution</th></tr>
<tr><td rowspan="4">Nonradionuclides</td><td>Ingestion</td><td>5.6×10^{-5}</td><td rowspan="9">Arsenic, (ELCR = 5.6×10^{-5}, 6.8%)
Tritium, (ELCR = 7.1×10^{-4}, 85%)</td><td>1.2</td><td rowspan="3">Arsenic, (HQ = 0.48, 39%)
Fluoride, (HQ = 0.11, 8.5%)
Nitrate, (HQ = 0.41, 33%)</td></tr>
<tr><td>Dermal Contact</td><td>3.0×10^{-7}</td><td>0.02</td></tr>
<tr><td>Inhalation of Volatiles</td><td>--</td><td>--</td></tr>
<tr><td>Total Risk</td><td>5.6×10^{-5}</td><td>Total HI</td><td>1.3</td></tr>
<tr><td rowspan="4">Radionuclides</td><td>Ingestion</td><td>7.4×10^{-5}</td><td colspan="2" rowspan="5">--</td></tr>
<tr><td>Immersion</td><td>1.2×10^{-12}</td></tr>
<tr><td>Inhalation of Volatiles</td><td>7.0×10^{-4}</td></tr>
<tr><td>Total Risk</td><td>7.7×10^{-4}</td></tr>
<tr><td colspan="2">Total Cumulative ELCR</td><td colspan="2">8.3×10^{-4}</td></tr>
</table>

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-34 is 8.3×10^{-4}. The total ELCR for nonradiological analytes is 5.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 7.7×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 7.1 x 10^{-4}, 85 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 5.6 x 10^{-5}, 6.8 percent contribution) where the EPC (2.9 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-34 when contribution from arsenic is not included.

The HI for well 199-N-34 is 1.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.48, 39 percent contribution), fluoride (HQ = 0.11, 8.5 percent contribution), and nitrate (HQ = 0.41, 33 percent contribution). The HI for well 199-N-34 without contribution from arsenic is 0.77, which is less than the target HI of 1.

Well 199-N-41. Table 7-15 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-41.

Table 7-15. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-41 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	8.8 x 10^{-5}	Arsenic, (ELCR = 8.8 x 10^{-5}, 16%) Tritium, (ELCR = 4.7 x 10^{-4}, 84%)	1.7	Arsenic, (HQ = 0.76, 44%) Fluoride, (HQ = 0.13, 7.3%) Nitrate, (HQ = 0.32, 19%) Vanadium, (HQ = 0.17, 10%)
	Dermal Contact	4.7 x 10^{-7}		0.04	
	Inhalation of Volatiles	--		--	
	Total Risk	8.8 x 10^{-5}		Total HI	1.7
Radionuclides	Ingestion	8.0 x 10^{-6}		--	
	Immersion	2.8 x 10^{-14}			
	Inhalation of Volatiles	4.6 x 10^{-4}			
	Total Risk	4.7 x 10^{-4}			
Total Cumulative ELCR		5.6 x 10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-41 is 5.6 × 10^{-4}. The total ELCR for nonradiological analytes is 8.8 × 10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1 × 10^{-5}. The total ELCR for radiological analytes is 4.7 × 10^{-4}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 4.7 x 10^{-4}, 84 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 8.8 x 10^{-5}, 16 percent contribution)

where the EPC (4.6 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-41 when contribution from arsenic is not included.

The HI for well 199-N-41 is 1.7, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.76, 44 percent contribution), fluoride (HQ = 0.13, 7.3 percent contribution), nitrate (HQ = 0.32, 19 percent contribution), and vanadium (HQ = 0.17, 10 percent contribution). The HI for well 199-N-41 without contribution from arsenic is 0.96, which is less than the target HI of 1.

Well 199-N-46. Table 7-16 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-46.

Table 7-16. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-46 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.3×10^{-4}	Arsenic, (ELCR = 1.3×10^{-4}, 5.6%) Strontium-90, (ELCR = 2.0×10^{-3}, 90%)	5.0	Arsenic, (HQ = 1.1, 21%) Manganese, (HQ = 0.11, 2.2%) Nitrate, (HQ = 0.11, 2.2%) Thallium, (HQ = 3.4, 66%) Vanadium, (HQ = 0.10, 2.1%)
	Dermal Contact	6.7×10^{-7}		0.05	
	Inhalation of Volatiles	--		--	
	Total Risk	1.3×10^{-4}		Total HI	5.1
Radionuclides	Ingestion	2.0×10^{-3}		--	
	Immersion	4.0×10^{-11}			
	Inhalation of Volatiles	8.8×10^{-5}			
	Total Risk	2.1×10^{-3}			
Total Cumulative ELCR		2.3×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-46 is 2.3×10^{-3}. The total ELCR for nonradiological analytes is 1.3×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.1×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 2.0×10^{-3}, 90 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.3×10^{-4}, 5.6 percent contribution) where the EPC (6.5 µg/L) is less than the 90th percentile background value of 7.85 µg/L. A total ELCR

for nonradiological analytes is not reported for well 199-N-46 when contribution from arsenic is not included.

The HI for well 199-N-46 is 5.1, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.1, 21 percent contribution), manganese (HQ = 0.11, 2.2 percent contribution), nitrate (HQ = 0.11, 2.2 percent contribution), thallium (HQ = 3.4, 66 percent contribution), and vanadium (HQ = 0.10, 2.1 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.67 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-46 without contribution from arsenic and thallium is 0.60, which is less than the target HI of 1..

Well 199-N-50. Table 7-17 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-50.

Table 7-17. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-50 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Tritium, (ELCR = 3.8 x 10^{-4}, 100%)	0.38	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.38
Radionuclides	Ingestion	6.4 x 10^{-6}		--	
	Immersion	2.0 x 10^{-14}			
	Inhalation of Volatiles	3.8 x 10^{-4}			
	Total Risk	3.8 x 10^{-4}			
Total Cumulative ELCR		3.8 x 10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-50 is 3.8 × 10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 3.8 × 10^{-4}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 3.8 x 10^{-4}, 100 percent contribution).

The HI for well 199-N-50 is 0.38, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-51. Table 7-18 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-51.

Table 7-18. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-51 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Tritium, (ELCR = 2.7×10^{-4}, 100%)	0.29	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.29
Radionuclides	Ingestion	3.7×10^{-6}		--	
	Immersion	--			
	Inhalation of Volatiles	2.6×10^{-4}			
	Total Risk	2.7×10^{-4}			
Total Cumulative ELCR		2.7×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-51 is 2.7×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.7×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 2.7×10^{-4}, 100 percent contribution).

The HI for well 199-N-51 is 0.29, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-52. Table 7-19 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-52.

Table 7-19. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-52 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Ingestion	--	--	0.68	--

Table 7-19. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-52 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Dermal Contact	--		0.04	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.72
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		--			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

There were no radiological or carcinogenic nonradiological analytes measured in well 199-N-52; therefore, cancer risks are not reported for this well.

There are no major risk contributors.

The HI for well 199-N-52 is 0.72, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-56. Table 7-20 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-56.

Table 7-20. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-56 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	4.3×10^{-7}	Strontium-90, (ELCR = 7.6×10^{-4}, 75%) Tritium, (ELCR = 2.5×10^{-4}, 25%)	4.2	Lithium, (HQ = 0.15, 3.5%) Nitrate, (HQ = 0.63, 15%) Nitrite, (HQ = 0.13,
	Dermal Contact	3.8×10^{-8}		0.03	

Table 7-20. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-56 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	3.7×10^{-6}		0.06	3.2%) Thallium, (HQ = 2.8, 66%) Uranium, (HQ = 0.15, 3.4%)
	Total Risk	4.2×10^{-6}		Total HI	4.3
Radionuclides	Ingestion	7.6×10^{-4}		--	
	Immersion	1.5×10^{-11}			
	Inhalation of Volatiles	2.5×10^{-4}			
	Total Risk	1.0×10^{-3}			
Total Cumulative ELCR		1.0×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-56 is 1.0×10^{-3}. The total ELCR for nonradiological analytes is 4.2×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.0×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 7.6×10^{-4}, 75 percent contribution) and tritium (ELCR = 2.5×10^{-4}, 25 percent contribution). Arsenic was not reported at well 199-N-56.

The HI for well 199-N-56 is 4.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are lithium (HQ = 0.15, 3.5 percent contribution), nitrate (HQ = 0.63, 15 percent contribution), nitrite (HQ = 0.13, 3.2 percent contribution), thallium (HQ = 2.8, 66 percent contribution), and uranium (HQ = 0.15, 3.4 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.56 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-56 without contribution from thallium is 1.5, which is greater than the target HI of 1. Arsenic was not reported at well 199-N-56

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Lithium: Nervous system and Kidney effects
- Nitrate: Early clinical signs of methemoglobinemia
- Nitrite: Early clinical signs of methemoglobinemia
- Uranium: Initial body weight loss and moderate nephrotoxicity

Exposure to nitrate, nitrite, lithium and uranium results in a similar critical effects. Combining the HQs for lithium and uranium results in an HQ of 0.30, which is less than the target HI of 1. Combining the HQs for nitrate and nitrite results in an HQ of 0.76, which is less than the target HI of 1.

Well 199-N-57. Table 7-21 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-57.

Table 7-21. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-57 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.6×10^{-5}	Arsenic, (ELCR = 3.6×10^{-5}, 12%) Naphthalene, (ELCR = 7.9×10^{-6}, 2.5%) Tritium, (ELCR = 1.7×10^{-4}, 56%)	2.5	Arsenic, (HQ = 0.31, 11%) Cobalt, (HQ = 0.20, 7.2%) Fluoride, (HQ = 0.13, 4.9%) Naphthalene, (HQ = 0.21, 7.8%) Nickel, (HQ = 0.94, 34%) Nitrate, (HQ = 0.52, 19%)
	Dermal Contact	1.9×10^{-7}		0.05	
	Inhalation of Volatiles	7.9×10^{-6}		0.21	
	Total Risk	4.4×10^{-5}		Total HI	2.7
Radionuclides	Ingestion	3.0×10^{-5}		--	
	Immersion	6.8×10^{-13}			
	Inhalation of Volatiles	2.4×10^{-4}			
	Total Risk	2.7×10^{-4}			
Total Cumulative ELCR		3.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-57 is 3.1×10^{-4}. The total ELCR for nonradiological analytes is 4.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.7×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are naphthalene (ELCR = 7.9×10^{-6}, 2.5 percent contribution) and tritium (ELCR = 1.7×10^{-4}, 56 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.6×10^{-5}, 12 percent contribution) where the EPC (1.9 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-57 without contribution from arsenic is 7.9×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-57 is 2.7, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.31, 11 percent contribution), cobalt (HQ = 0.20, 7.2 percent contribution), fluoride (HQ = 0.13, 4.9 percent contribution), naphthalene (HQ = 0.21, 7.8 percent contribution), nickel (HQ = 0.94, 34 percent contribution), and nitrate (HQ = 0.52, 19 percent contribution). The HI for well 199-N-57 without contribution from arsenic is 2.4, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Naphthalene: decreased mean terminal body weight in males
- Nickel: decreased body and organ weights
- Nitrate: early clinical signs of methemoglobinemia

With the exception of nickel and naphthalene, exposure to each of the analytes that contribute to the HI of 2.4 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for nickel and naphthalene results in an HI of 1.2, which is greater than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-64. Table 7-22 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-64.

Table 7-22. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-64 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.5×10^{-5}	Arsenic, (ELCR = 2.5×10^{-5}, 3.4%) Tritium, (ELCR = 7.1×10^{-4}, 96%)	6.0	Arsenic, (HQ = 0.22, 3.6%) Fluoride, (HQ = 0.12, 2.0%) Nitrate, (HQ = 0.55, 9.2%) Thallium, (HQ = 4.7, 79%)
	Dermal Contact	1.3×10^{-7}		0.04	
	Inhalation of Volatiles	--		--	
	Total Risk	2.5×10^{-5}		Total HI	6.0
Radionuclides	Ingestion	1.4×10^{-5}		--	
	Immersion	8.3×10^{-14}			
	Inhalation of Volatiles	7.0×10^{-4}			
	Total Risk	7.2×10^{-4}			
Total Cumulative ELCR		7.4×10^{-4}			

Table 7-22. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-64 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-64 is 7.4×10^{-4}. The total ELCR for nonradiological analytes is 2.5×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 7.2×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 7.1×10^{-4}, 96 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 2.5×10^{-5}, 3.4 percent contribution) where the EPC (1.3 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-64 when contribution from arsenic is not included.

The HI for well 199-N-64 is 6.0, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.22, 3.6 percent contribution), fluoride (HQ = 0.12, 2.0 percent contribution), nitrate (HQ = 0.55, 9.2 percent contribution), and thallium (HQ = 4.7, 79 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.94 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-64 without contribution from arsenic and thallium is 1.1, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: Objectionable dental fluorosis, a cosmetic effect
- Nitrate: Early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 1.1 results in a different critical effect. As such, it is appropriate to segregate their contributions resulting in an HI of less than 1 for each analyte. Evaluating each of the analytes individually results in an HI less than 1..

Well 199-N-67. Table 7-23 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-67.

Table 7-23. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-67 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.8×10^{-5}	Arsenic, (ELCR = 3.8×10^{-5}, 0.19%) Strontium-90, (ELCR = 1.9×10^{-2}, 97%) Tritium, (ELCR = 5.0×10^{-4}, 2.5%)	3.6	Antimony, (HQ = 0.26, 7.1%) Arsenic, (HQ = 0.33, 9.2%) Cobalt, (HQ = 0.16, 4.3%) Nitrate, (HQ = 2.2, 62%)
	Dermal Contact	2.0×10^{-7}		0.04	
	Inhalation of Volatiles	--		--	

Table 7-23. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-67 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Total Risk	3.8×10^{-5}		Total HI	3.6
Radionuclides	Ingestion	1.9×10^{-2}		--	
	Immersion	3.8×10^{-10}			
	Inhalation of Volatiles	5.0×10^{-4}			
	Total Risk	2.0×10^{-2}			
Total Cumulative ELCR		2.0×10^{-2}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-67 is 2.0×10^{-2}. The total ELCR for nonradiological analytes is 3.8×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.0×10^{-2}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.9×10^{-2}, 97 percent contribution) and tritium (ELCR = 5.0×10^{-4}, 2.5 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.8×10^{-5}, 0.19 percent contribution) where the EPC (2.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-67 when contribution from arsenic is not included.

The HI for well 199-N-67 is 3.6, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are antimony (HQ = 0.26, 7.1 percent contribution), arsenic (HQ = 0.33, 9.2 percent contribution), cobalt (HQ = 0.16, 4.3 percent contribution), and nitrate (HQ = 2.2, 62 percent contribution). The HI for well 199-N-67 without contribution from arsenic is 3.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Antimony: Longevity, blood glucose, and cholesterol
- Cobalt: Thyroid, decreased iodine uptake
- Nitrate: Early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 3.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Nitrate reports an individual HQ greater than 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-71. Table 7-24 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-71.

Table 7-24. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-71 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.0×10^{-4}	Arsenic, (ELCR = 1.0×10^{-4}, 51%) Chloroform, (ELCR = 1.0×10^{-5}, 5.3%)	2.8	Arsenic, (HQ = 0.87, 30%) Fluoride, (HQ = 0.21, 7.1%) Thallium, (HQ = 1.1, 38%) Vanadium, (HQ = 0.23, 7.8%)
	Dermal Contact	6.1×10^{-7}		0.08	
	Inhalation of Volatiles	9.4×10^{-6}		0.01	
	Total Risk	1.1×10^{-4}		Total HI	2.9
Radionuclides	Ingestion	3.0×10^{-6}		--	
	Immersion	3.1×10^{-14}			
	Inhalation of Volatiles	8.2×10^{-5}			
	Total Risk	8.5×10^{-5}			
Total Cumulative ELCR		2.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-71 is 2.0×10^{-4}. The total ELCR for nonradiological analytes is 1.1×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 8.5×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 1.0×10^{-5}, 5.3 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.0×10^{-4}, 51 percent contribution) where the EPC (5.2 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-71 without contribution from arsenic is 1.0×10^{-5}, which is equal to the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-71 is 2.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.87, 30 percent contribution), fluoride (HQ = 0.21, 7.1 percent contribution), thallium (HQ = 1.1, 38 percent contribution), and vanadium (HQ = 0.23, 7.8 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.22 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-71 without contribution from arsenic and thallium is 0.93, which is less than the target HI of 1.

Well 199-N-72. Table 7-25 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-72.

Table 7-25. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-72 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.7×10^{-6}	Chloroform, (ELCR = 1.9×10^{-5}, 100%)	1.3	Fluoride, (HQ = 0.53, 40%) Nitrate, (HQ = 0.37, 28%) Vanadium, (HQ = 0.29, 22%)
	Dermal Contact	1.5×10^{-7}		0.05	
	Inhalation of Volatiles	1.8×10^{-5}		0.02	
	Total Risk	1.9×10^{-5}		Total HI	1.3
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		1.9×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-72 is 1.9×10^{-5}. The total ELCR for nonradiological analytes is 1.9×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 1.9×10^{-5}, 100 percent contribution). Arsenic was not reported at well 199-N-72.

The HI for well 199-N-72 is 1.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are fluoride (HQ = 0.53, 40 percent contribution), nitrate (HQ = 0.37, 28 percent contribution), and vanadium (HQ = 0.29, 22 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: Objectionable dental fluorosis, a cosmetic effect
- Nitrate: Early clinical signs of methemoglobinemia
- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-73. Table 7-26 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-73.

Table 7-26. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-73 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.0×10^{-4}	Arsenic, (ELCR = 1.0×10^{-4}, 62%) Chloroform, (ELCR = 2.3×10^{-5}, 14%)	2.3	Arsenic, (HQ = 0.87, 37%) Fluoride, (HQ = 0.48, 21%) Nitrate, (HQ = 0.38, 16%) Vanadium, (HQ = 0.17, 7.5%)
	Dermal Contact	7.1×10^{-7}		0.04	
	Inhalation of Volatiles	2.0×10^{-5}		0.02	
	Total Risk	1.2×10^{-4}		Total HI	2.3
Radionuclides	Ingestion	5.3×10^{-7}		--	
	Immersion	--			
	Inhalation of Volatiles	3.8×10^{-5}			
	Total Risk	3.8×10^{-5}			
Total Cumulative ELCR		1.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-73 is 1.6×10^{-4}. The total ELCR for nonradiological analytes is 1.2×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 3.8×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 2.3×10^{-5}, 14 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.0×10^{-4}, 62 percent contribution) where the EPC (5.2 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-73 without contribution from arsenic is 2.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-73 is 2.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.87, 37 percent contribution), fluoride (HQ = 0.48, 21 percent contribution), nitrate (HQ = 0.38, 16 percent contribution), and vanadium (HQ = 0.17, 7.5 percent contribution). The HI for well 199-N-73 without contribution from arsenic is 1.5, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.5 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-74. Table 7-27 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-74.

Table 7-27. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-74 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.1×10^{-4}	Arsenic, (ELCR = 1.1×10^{-4}, 17%) Tritium, (ELCR = 5.8×10^{-4}, 83%)	2.4	Arsenic, (HQ = 0.98, 36%) Fluoride, (HQ = 0.21, 7.7%) Hexavalent Chromium, (HQ = 0.92, 34%) Nitrate, (HQ = 0.14, 5.2%) Vanadium, (HQ = 0.25, 9.1%)
	Dermal Contact	6.1×10^{-7}		0.28	
	Inhalation of Volatiles	--		--	
	Total Risk	1.1×10^{-4}		Total HI	2.7
Radionuclides	Ingestion	8.1×10^{-6}		--	
	Immersion	--			
	Inhalation of Volatiles	5.7×10^{-4}			
	Total Risk	5.8×10^{-4}			
Total Cumulative ELCR		6.9×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-74 is 6.9×10^{-4}. The total ELCR for nonradiological analytes is 1.1×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 5.8×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 5.8×10^{-4}, 83 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.1×10^{-4}, 17 percent contribution) where the EPC (5.9 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A

total ELCR for nonradiological analytes is not reported for well 199-N-74 when contribution from arsenic is not included.

The HI for well 199-N-74 is 2.7, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.98, 36 percent contribution), fluoride (HQ = 0.21, 7.7 percent contribution), hexavalent chromium (HQ = 0.92, 34 percent contribution), nitrate (HQ = 0.14, 5.2 percent contribution), and vanadium (HQ = 0.25, 9.1 percent contribution). The HI for well 199-N-74 without contribution from arsenic is 1.7, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.7 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-75. Table 7-28 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-75.

Table 7-28. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-75 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.1×10^{-5}	Arsenic, (ELCR = 1.1×10^{-5}, 0.22%) Strontium-90, (ELCR = 4.1×10^{-3}, 86%) Tritium, (ELCR = 6.9×10^{-4}, 14%)	0.86	--
	Dermal Contact	5.8×10^{-8}		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	1.1×10^{-5}		Total HI	0.87
Radionuclides	Ingestion	4.1×10^{-3}		--	
	Immersion	8.1×10^{-11}			
	Inhalation of Volatiles	6.8×10^{-4}			
	Total Risk	4.8×10^{-3}			
Total Cumulative ELCR		4.8×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-75 is 4.8×10^{-3}. The total ELCR for nonradiological analytes is 1.1×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.8×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 4.1×10^{-3}, 86 percent contribution) and tritium (ELCR = 6.9×10^{-4}, 14 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.1×10^{-5}, 0.22 percent contribution) where the EPC (0.56 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-75 when contribution from arsenic is not included.

The HI for well 199-N-75 is 0.87, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-76. Table 7-29 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-76.

Table 7-29. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-76 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.4×10^{-5}	Arsenic, (ELCR = 3.4×10^{-5}, 1.5%) Strontium-90, (ELCR = 1.4×10^{-3}, 62%) Tritium, (ELCR = 8.1×10^{-4}, 36%)	3.6	Arsenic, (HQ = 0.30, 8.2%) Nitrate, (HQ = 0.75, 21%) Thallium, (HQ = 2.3, 64%)
	Dermal Contact	1.8×10^{-7}		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	3.4×10^{-5}		Total HI	3.6
Radionuclides	Ingestion	1.4×10^{-3}		--	
	Immersion	2.7×10^{-11}			
	Inhalation of Volatiles	8.0×10^{-4}			
	Total Risk	2.2×10^{-3}			
Total Cumulative ELCR		2.2×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-76 is 2.2×10^{-3}. The total ELCR for nonradiological analytes is 3.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.2×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.4×10^{-3}, 62 percent contribution) and tritium (ELCR = 8.1×10^{-4}, 36 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.4×10^{-5}, 1.5 percent contribution) where the EPC (1.8 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-76 when contribution from arsenic is not included.

The HI for well 199-N-76 is 3.6, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.30, 8.2 percent contribution), nitrate (HQ = 0.75, 21 percent contribution), and thallium (HQ = 2.3, 64 percent contribution). Contribution to HI is elevated for thallium where the EPC (0.46 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-76 without contribution from arsenic and thallium is 1.0, which is equal to the target HI of 1.

Well 199-N-81. Table 7-30 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-81.

Table 7-30. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-81 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	5.2×10^{-5}	Arsenic, (ELCR = 5.2×10^{-5}, 3.5%) Strontium-90, (ELCR = 7.2×10^{-4}, 48%) Tritium, (ELCR = 7.3×10^{-4}, 49%)	1.4	Arsenic, (HQ = 0.45, 31%) Fluoride, (HQ = 0.12, 8.3%) Manganese, (HQ = 0.13, 9.4%) Nitrate, (HQ = 0.37, 26%) Vanadium, (HQ = 0.11, 7.5%)
	Dermal Contact	2.8×10^{-7}		0.04	
	Inhalation of Volatiles	--		--	
	Total Risk	5.2×10^{-5}		Total HI	1.4
Radionuclides	Ingestion	7.3×10^{-4}		--	
	Immersion	1.4×10^{-11}			
	Inhalation of Volatiles	7.2×10^{-4}			
	Total Risk	1.5×10^{-3}			
Total Cumulative ELCR		1.5×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-81 is 1.5×10^{-3}. The total ELCR for nonradiological analytes is 5.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.5×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 7.2 x 10^{-4}, 48 percent contribution) and tritium (ELCR = 7.3 x 10^{-4}, 49 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 5.2 x 10^{-5}, 3.5 percent contribution) where the EPC (2.7 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-81 when contribution from arsenic is not included.

The HI for well 199-N-81 is 1.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.45, 31 percent contribution), fluoride (HQ = 0.12, 8.3 percent contribution), manganese (HQ = 0.13, 9.4 percent contribution), nitrate (HQ = 0.37, 26 percent contribution), and vanadium (HQ = 0.11, 7.5 percent contribution). The HI for well 199-N-81 without contribution from arsenic is 0.99, which is less than the target HI of 1.

Well 199-N-92A. Table 7-31 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-92A.

Table 7-31. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-92A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	4.5 x 10^{-5}	Arsenic, (ELCR = 4.5 x 10^{-5}, 6.4%) Tritium, (ELCR = 6.6 x 10^{-4}, 93%)	0.89	--
	Dermal Contact	2.4 x 10^{-7}		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	4.5 x 10^{-5}		Total HI	0.90
Radionuclides	Ingestion	1.1 x 10^{-5}		--	
	Immersion	3.6 x 10^{-14}			
	Inhalation of Volatiles	6.5 x 10^{-4}			
	Total Risk	6.6 x 10^{-4}			
Total Cumulative ELCR		7.0 x 10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-92A is 7.0 × 10^{-4}. The total ELCR for nonradiological analytes is 4.5 × 10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1 × 10^{-5}. The total ELCR for radiological analytes is 6.6 × 10^{-4}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributors to the total cumulative ELCR are tritium (ELCR = 6.6 x 10^{-4}, 93 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 4.5 x 10^{-5}, 6.4 percent contribution)

where the EPC (2.3 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-92A when contribution from arsenic is not included.

The HI for well 199-N-92A is 0.90, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-99A. Table 7-32 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-99A.

Table 7-32. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-99A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.3 x 10^{-3}, 79%) Tritium, (ELCR = 5.9 x 10^{-4}, 21%)	0.64	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.65
Radionuclides	Ingestion	2.3 x 10^{-3}		--	
	Immersion	4.4 x 10^{-11}			
	Inhalation of Volatiles	5.8 x 10^{-4}			
	Total Risk	2.9 x 10^{-3}			
Total Cumulative ELCR		2.9 x 10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-99A is 2.9 × 10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.9 × 10^{-3}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 2.3 x 10^{-3}, 79 percent contribution) and tritium (ELCR = 5.9 x 10^{-4}, 21 percent contribution).

The HI for well 199-N-99A is 0.65, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-103A. Table 7-33 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-103A.

Table 7-33. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-103A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	5.0×10^{-5}	Arsenic, (ELCR = 5.0×10^{-5}, 1.7%) Strontium-90, (ELCR = 2.3×10^{-3}, 77%) Tritium, (ELCR = 6.2×10^{-4}, 21%)	1.7	Arsenic, (HQ = 0.43, 26%) Nitrate, (HQ = 1.0, 60%) Vanadium, (HQ = 0.13, 7.9%)
	Dermal Contact	2.7×10^{-7}		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	5.0×10^{-5}		Total HI	1.7
Radionuclides	Ingestion	2.3×10^{-3}		--	
	Immersion	4.4×10^{-11}			
	Inhalation of Volatiles	6.2×10^{-4}			
	Total Risk	2.9×10^{-3}			
Total Cumulative ELCR		2.9×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-103A is 2.9×10^{-3}. The total ELCR for nonradiological analytes is 5.0×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.9×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 2.3×10^{-3}, 77 percent contribution) and tritium (ELCR = 6.2×10^{-4}, 21 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 5.0×10^{-5}, 1.7 percent contribution) where the EPC (2.6 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-103A when contribution from arsenic is not included.

The HI for well 199-N-103A is 1.7, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.43, 26 percent contribution), nitrate (HQ = 1.0, 60 percent contribution), and vanadium (HQ = 0.13, 7.9 percent contribution). The HI for well 199-N-103A without contribution from arsenic is 1.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Nitrate has an HQ of 1.0, which is equal to the target HI of 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-104A. Table 7-34 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-104A.

Table 7-34. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-104A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 5.4 x 10^{-4}, 41%) Tritium, (ELCR = 7.6 x 10^{-4}, 59%)	0.59	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.61
Radionuclides	Ingestion	5.5 x 10^{-4}		--	
	Immersion	1.1 x 10^{-11}			
	Inhalation of Volatiles	7.5 x 10^{-4}			
	Total Risk	1.3 x 10^{-3}			
Total Cumulative ELCR		1.3 x 10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-104A is 1.3×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.3×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 5.4 x 10^{-4}, 41 percent contribution) and tritium (ELCR = 7.6 x 10^{-4}, 59 percent contribution).

The HI for well 199-N-104A is 0.61, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-105A. Table 7-35 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-105A.

Table 7-35. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-105A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.5×10^{-5}	Arsenic, (ELCR = 3.5×10^{-5}, 0.37%) Strontium-90, (ELCR = 8.6×10^{-3}, 91%) Tritium, (ELCR = 8.3×10^{-4}, 8.8%)	1.4	Arsenic, (HQ = 0.30, 21%) Nitrate, (HQ = 0.91, 64%)
	Dermal Contact	1.9×10^{-7}		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	3.5×10^{-5}		Total HI	1.4
Radionuclides	Ingestion	8.7×10^{-3}		--	
	Immersion	1.7×10^{-10}			
	Inhalation of Volatiles	8.2×10^{-4}			
	Total Risk	9.5×10^{-3}			
Total Cumulative ELCR		9.5×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-105A is 9.5×10^{-3}. The total ELCR for nonradiological analytes is 3.5×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.5×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 8.6×10^{-3}, 91 percent contribution) and tritium (ELCR = 8.3×10^{-4}, 8.8 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.5×10^{-5}, 0.37 percent contribution) where the EPC (1.8 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-105A when contribution from arsenic is not included.

The HI for well 199-N-105A is 1.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.30, 21 percent contribution), and nitrate (HQ = 0.91, 64 percent contribution). The HI for well 199-N-105A without contribution from arsenic is 1.1, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Nitrate: early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 1.1 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-106A. Table 7-36 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-106A.

Table 7-36. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-106A – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	4.2×10^{-5}	Arsenic, (ELCR = 4.3×10^{-5}, 0.94%) Strontium-90, (ELCR = 3.6×10^{-3}, 80%) Tritium, (ELCR = 8.6×10^{-4}, 19%)	0.93	--
	Dermal Contact	2.3×10^{-7}		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	4.3×10^{-5}		Total HI	0.95
Radionuclides	Ingestion	3.6×10^{-3}		--	
	Immersion	7.0×10^{-11}			
	Inhalation of Volatiles	8.5×10^{-4}			
	Total Risk	4.5×10^{-3}			
Total Cumulative ELCR		4.5×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-106A is 4.5×10^{-3}. The total ELCR for nonradiological analytes is 4.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.5×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 3.6×10^{-3}, 80 percent contribution) and tritium (ELCR = 8.6×10^{-4}, 19 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 4.3×10^{-5}, 0.94 percent contribution) where the EPC (2.2 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-106A when contribution from arsenic is not included.

The HI for well 199-N-106A is 0.95, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-165. Table 7-37 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-165.

Table 7-37. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-165 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.8×10^{-4}	Arsenic, (ELCR = 2.8×10^{-4}, 78%) Chloroform, (ELCR = 2.2×10^{-5}, 6.0%)	3.7	Arsenic, (HQ = 2.4, 64%) Fluoride, (HQ = 0.49, 13%) Nitrate, (HQ = 0.25, 6.5%) Vanadium, (HQ = 0.37, 9.8%)
	Dermal Contact	1.7×10^{-6}		0.09	
	Inhalation of Volatiles	2.0×10^{-5}		0.02	
	Total Risk	3.0×10^{-4}		Total HI	3.8
Radionuclides	Ingestion	3.2×10^{-6}		--	
	Immersion	4.5×10^{-14}			
	Inhalation of Volatiles	5.5×10^{-5}			
	Total Risk	5.8×10^{-5}			
Total Cumulative ELCR		3.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-165 is 3.6×10^{-4}. The total ELCR for nonradiological analytes is 3.0×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 5.8×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 2.2×10^{-5}, 6.0 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 2.8×10^{-4}, 78 percent contribution) where the EPC (15 µg/L) is greater than the range of Hanford site natural background values for arsenic (0.5 µg/L to 8.8 µg/L). The nonradiological ELCR for well 199-N-165 without contribution from arsenic is 2.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-165 is 3.8, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 2.4, 64 percent contribution), fluoride (HQ = 0.49, 13 percent contribution), nitrate (HQ = 0.25, 6.5 percent contribution), and vanadium (HQ = 0.37, 9.8 percent contribution). The HI for well 199-N-165 without contribution from arsenic is 1.4, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Arsenic: hyperpigmentation, keratosis, and possible vascular complications
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Nitrate: Early clinical signs of methemoglobinemia

- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 3.8 results in a different critical effect. Arsenic has a HQ of 2.4 which is greater than the target HI of 1. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-167. Table 7-38 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-167.

Table 7-38. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-167 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	4.5×10^{-5}	Arsenic, (ELCR = 4.5×10^{-5}, 86%) Chloroform, (ELCR = 7.0×10^{-6}, 14%)	3.3	Arsenic, (HQ = 0.38, 11%) Cobalt, (HQ = 0.27, 7.6%) Lithium, (HQ = 0.22, 6.2%) Manganese, (HQ = 1.7, 48%) Nitrate, (HQ = 0.41, 12%)
	Dermal Contact	2.9×10^{-7}		0.19	
	Inhalation of Volatiles	6.3×10^{-6}		< 0.01	
	Total Risk	5.2×10^{-5}		Total HI	3.5
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		5.2×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-167 is 5.2×10^{-5}. The total ELCR for nonradiological analytes is 5.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 7.0 x 10^{-6}, 14 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 4.5 x 10^{-5}, 86 percent contribution) where the EPC (2.3 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-167 without contribution from arsenic is 7.0 × 10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1 × 10^{-5}.

The HI for well 199-N-167 is 3.5, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.38, 11 percent contribution), cobalt (HQ = 0.27, 7.6 percent contribution), lithium (HQ = 0.22, 6.2 percent contribution), manganese (HQ = 1.7, 48 percent contribution), and nitrate (HQ = 0.41, 12 percent contribution). The HI for well 199-N-167 without contribution from arsenic is 3.1, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Lithium: nervous system and Kidney effects
- Manganese: nervous system effects
- Nitrate: early clinical signs of methemoglobinemia

With the exception of manganese and lithium, exposure to each of the analytes that contribute to the HI of 3.1 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for manganese and lithium results in an HQ of 1.9, which is greater than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-169. Table 7-39 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-169.

Table 7-39. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-169 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	5.2 x 10^{-5}	Arsenic, (ELCR = 5.2 x 10^{-5}, 92%) Chloroform, (ELCR = 3.9 x 10^{-6}, 7.0%)	4.5	Arsenic, (HQ = 0.45, 9.3%) Cobalt, (HQ = 0.38, 7.9%) Lithium, (HQ = 0.25, 5.1%) Manganese, (HQ = 2.7, 57%) Nitrate, (HQ = 0.34, 7.1%) Nitrite, (HQ = 0.19, 3.9%)
	Dermal Contact	3.1 x 10^{-7}		0.30	
	Inhalation of Volatiles	4.0 x 10^{-6}		0.02	
	Total Risk	5.6 x 10^{-5}		Total HI	4.9
Radionuclides	Ingestion	--		--	

Table 7-39. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-169 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		5.6×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-169 is 5.6×10^{-5}. The total ELCR for nonradiological analytes is 5.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 3.9×10^{-6}, 7.0 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 5.2×10^{-5}, 92 percent contribution) where the EPC (2.7 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-169 without contribution from arsenic is 4.4×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-169 is 4.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.45, 9.3 percent contribution), cobalt (HQ = 0.38, 7.9 percent contribution), lithium (HQ = 0.25, 5.1 percent contribution), manganese (HQ = 2.7, 57 percent contribution), nitrate (HQ = 0.34, 7.1 percent contribution), and nitrite (HQ = 0.19, 3.9 percent contribution). The HI for well 199-N-169 without contribution from arsenic is 4.4, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Lithium: nervous system and Kidney effects
- Manganese: nervous system effects
- Nitrate: early clinical signs of methemoglobinemia
- Nitrite: early clinical signs of methemoglobinemia

With the exception of manganese, lithium, nitrite, and nitrate, exposure to each of the analytes that contribute to the HI of 4.4 results in a different critical effect. Combining the HQs for manganese and lithium results in an HI of 3.0, which is greater than the target HI of 1. Combining the HQs for nitrite and nitrate results in an HI of 0.53, which is less than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-171. Table 7-40 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-171.

Table 7-40. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-171 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.4×10^{-5}	Arsenic, (ELCR = 7.4×10^{-5}, 100%)	10	Arsenic, (HQ = 0.64, 5.7%) Iron, (HQ = 0.15, 1.3%) Lithium, (HQ = 0.23, 2.1%) Manganese, (HQ = 9.4, 85%)
	Dermal Contact	4.2×10^{-7}		0.97	
	Inhalation of Volatiles	1.7×10^{-7}		< 0.01	
	Total Risk	7.4×10^{-5}		Total HI	11
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		7.4×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-171 is 7.4×10^{-5}. The total ELCR for nonradiological analytes is 7.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

There are no major risk contributors. Contribution to ELCR is elevated for arsenic (ELCR = 7.4×10^{-5}, 100 percent contribution) where the EPC (3.8 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-171 without contribution from arsenic is 3.2×10^{-7}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-171 is 11, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.64, 5.7 percent contribution), iron (HQ = 0.15, 1.3 percent contribution), lithium (HQ = 0.23, 2.1 percent contribution),

and manganese (HQ = 9.4, 85 percent contribution). The HI for well 199-N-171 without contribution from arsenic is 10, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Iron: GI tract; adverse gastrointestinal effects
- Lithium: nervous system and Kidney effects
- Manganese: nervous system effects

With the exception of manganese and lithium, exposure to each of the analytes that contribute to the HI of 10 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for manganese and lithium results in an HI of 9.7, which is greater than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-172. Table 7-41 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-172.

Table 7-41. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-172 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	9.2×10^{-5}	Arsenic, (ELCR = 9.2×10^{-5}, 87%) Dibenz[a,h]anthracene, (ELCR = 1.3×10^{-5}, 12%)	7.8	Arsenic, (HQ = 0.79, 9.4%) Cobalt, (HQ = 0.43, 5.1%) Fluoride, (HQ = 0.15, 1.8%) Iron, (HQ = 0.20, 2.3%) Lithium, (HQ = 0.21, 2.5%) Manganese, (HQ = 6.1, 72%) Uranium, (HQ = 0.15, 1.8%)
	Dermal Contact	1.3×10^{-5}		0.63	
	Inhalation of Volatiles	6.4×10^{-7}		0.02	
	Total Risk	1.1×10^{-4}		Total HI	8.5
Radionuclides	Ingestion	--		--	
	Immersion	--			

Table 7-41. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-172 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		1.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-172 is 1.1×10^{-4}. The total ELCR for nonradiological analytes is 1.1×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributor to the total cumulative ELCR is dibenz[a,h]anthracene (ELCR = 1.3×10^{-5}, 12 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 9.2×10^{-5}, 87 percent contribution) where the EPC (4.8 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-172 without contribution from arsenic is 1.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-172 is 8.5, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.79, 9.4 percent contribution), cobalt (HQ = 0.43, 5.1 percent contribution), fluoride (HQ = 0.15, 1.8 percent contribution), iron (HQ = 0.20, 2.3 percent contribution), lithium (HQ = 0.21, 2.5 percent contribution), manganese (HQ = 6.1, 72 percent contribution), and uranium (HQ = 0.15, 1.8 percent contribution). The HI for well 199-N-172 without contribution from arsenic is 7.7, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Iron: GI tract; adverse gastrointestinal effects
- Lithium: nervous system and Kidney effects
- Manganese: nervous system effects
- Uranium: initial body weight loss and moderate nephrotoxicity

With the exception of lithium, manganese, and uranium, exposure to each of the analytes that contribute to the HI of 7.7 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for lithium and manganese results in an HQ of 6.3, which is greater than the target HI of 1. Combining the HQs for lithium and uranium results in an HQ of 0.36, which is less than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-173. Table 7-42 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-173.

Table 7-42. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-173 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	8.9×10^{-6}	Arsenic, (ELCR = 7.5×10^{-6}, 3.7%) Benzo(a)anthracene, (ELCR = 2.5×10^{-6}, 1.2%) Bis(2-ethylhexyl) phthalate, (ELCR = 3.0×10^{-5}, 15%) Dibenz[a,h]anthracene, (ELCR = 1.4×10^{-5}, 6.9%) Naphthalene, (ELCR = 7.3×10^{-6}, 3.5%) Tritium, (ELCR = 1.1×10^{-4}, 54%)	7.1	Bis(2-ethylhexyl) phthalate, (HQ = 0.38, 4.6%) Cobalt, (HQ = 0.13, 1.6%) Fluoride, (HQ = 0.10, 1.2%) Manganese, (HQ = 6.2, 75%) Naphthalene, (HQ = 0.20, 2.4%) Nitrate, (HQ = 0.60, 7.3%) Thallium, (HQ = 0.15, 1.8%)
	Dermal Contact	4.5×10^{-5}		1.0	
	Inhalation of Volatiles	8.2×10^{-6}		0.21	
	Total Risk	6.2×10^{-5}		Total HI	8.3
Radionuclides	Ingestion	3.5×10^{-5}		--	
	Immersion	6.6×10^{-13}			
	Inhalation of Volatiles	1.1×10^{-4}			

Table 7-42. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-173 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Total Risk	1.4×10^{-4}			
Total Cumulative ELCR		2.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-173 is 2.1×10^{-4}. The total ELCR for nonradiological analytes is 6.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.4×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are benzo(a)anthracene (ELCR = 2.5×10^{-6}, 1.2 percent contribution), bis(2-ethylhexyl) phthalate (ELCR = 3.0×10^{-5}, 15 percent contribution), dibenz[a,h]anthracene (ELCR = 1.4×10^{-5}, 6.9 percent contribution), naphthalene (ELCR = 7.3×10^{-6}, 3.5 percent contribution), and tritium (ELCR = 1.1×10^{-4}, 54 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 7.5×10^{-6}, 3.7 percent contribution) where the EPC (0.39 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-173 without contribution from arsenic is 5.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-173 is 8.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are bis(2-ethylhexyl) phthalate (HQ = 0.38, 4.6 percent contribution), cobalt (HQ = 0.13, 1.6 percent contribution), fluoride (HQ = 0.10, 1.2 percent contribution), manganese (HQ = 6.2, 75 percent contribution), naphthalene (HQ = 0.20, 2.4 percent contribution), nitrate (HQ = 0.60, 7.3 percent contribution), and thallium (HQ = 0.15, 1.8 percent contribution). The EPC for thallium (0.03 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-173 without contribution from arsenic and thallium is 8.2, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Bis(2-ethylhexyl) phthalate: increased relative liver weight
- Cobalt: thyroid, decreased iodine uptake
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Manganese: nervous system effects

- Naphthalene: decreased mean terminal body weight in males
- Nitrate: early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 8.2 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Manganese has an HQ of 6.2, which is greater than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-183. Table 7-43 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-183.

Table 7-43. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-183 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	8.6×10^{-5}	Aldrin, (ELCR = 1.3×10^{-4}, 18%) Arsenic, (ELCR = 7.0×10^{-5}, 10%) beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), (ELCR = 1.8×10^{-5}, 2.6%) Carbon tetrachloride, (ELCR = 1.2×10^{-6}, 0.17%) Strontium-90, (ELCR = 1.5×10^{-4}, 22%) Tritium, (ELCR = 2.4×10^{-4}, 35%)	10	Aldrin, (HQ = 0.73, 6.2%) Arsenic, (HQ = 0.60, 5.1%) Bromomethane, (HQ = 0.23, 1.9%) Cobalt, (HQ = 0.39, 3.3%) Hexavalent Chromium, (HQ = 0.16, 1.3%) Iron, (HQ = 0.20, 1.7%) Lithium, (HQ = 0.17, 1.4%) Manganese, (HQ = 8.8, 75%) Nitrite, (HQ = 0.11, 0.91%)
	Dermal Contact	1.1×10^{-4}		1.6	
	Inhalation of Volatiles	2.3×10^{-5}		0.19	
	Total Risk	2.2×10^{-4}		Total HI	12
Radionuclides	Ingestion	1.6×10^{-4}		--	
	Immersion	3.3×10^{-12}			

Table 7-43. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-183 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	3.2×10^{-4}			
	Total Risk	4.7×10^{-4}			
Total Cumulative ELCR		6.9×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-183 is 6.9×10^{-4}. The total ELCR for nonradiological analytes is 2.2×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.7×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are aldrin (ELCR = 1.3×10^{-4}, 18 percent contribution), beta-1,2,3,4,5,6-hexachlorocyclohexane (beta-bhc) (ELCR = 1.8×10^{-5}, 2.6 percent contribution), carbon tetrachloride (ELCR = 1.2×10^{-6}, 0.17 percent contribution), strontium-90 (ELCR = 1.5×10^{-4}, 22 percent contribution), and tritium (ELCR = 2.4×10^{-4}, 35 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 7.0×10^{-5}, 10 percent contribution) where the EPC (3.6 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-183 without contribution from arsenic is 1.5×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-183 is 12, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are aldrin (HQ = 0.73, 6.2 percent contribution), arsenic (HQ = 0.60, 5.1 percent contribution), bromomethane (HQ = 0.23, 1.9 percent contribution), cobalt (HQ = 0.39, 3.3 percent contribution), hexavalent chromium (HQ = 0.16, 1.3 percent contribution), iron (HQ = 0.20, 1.7 percent contribution), lithium (HQ = 0.17, 1.4 percent contribution), manganese (HQ = 8.8, 75 percent contribution), and nitrite (HQ = 0.11, 0.91 percent contribution). The HI for well 199-N-183 without contribution from arsenic is 11, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Aldrin: liver toxicity
- Bromomethane: epithelial hyperplasia of the forestomach and degenerative and proliferative lesions of the olfactory epithelium of the nasal cavity
- Cobalt: thyroid, decreased iodine uptake
- Hexavalent hromium: nasal septum atrophy
- Iron: GI tract; adverse gastrointestinal effects
- Lithium: nervous system and Kidney effects
- Manganese: nervous system effects
- Nitrite: early clinical signs of methemoglobinemia

With the exception of bromomethane, Cr(VI), lithium, manganese, and lithium, exposure to each of the analytes that contribute to the HI of 11 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Combining the HQs for bromomethane and Cr(VI) results in an HQ of 0.38, which is less than the target HI of 1. Combining the HQs for lithium and manganese results in an HQ of 9.0, which is greater than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1..

Well 199-N-184. Table 7-44 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-184.

Table 7-44. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-184 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.9×10^{-5}	Arsenic, (ELCR = 3.8×10^{-5}, 0.49%) Chloroform, (ELCR = 5.0×10^{-6}, 0.06%) Strontium-90, (ELCR = 7.1×10^{-3}, 90%) Tritium, (ELCR = 7.1×10^{-4}, 9.0%)	1.3	Antimony, (HQ = 0.14, 11%) Arsenic, (HQ = 0.33, 26%) Molybdenum, (HQ = 0.10, 7.7%) Nitrate, (HQ = 0.44, 34%)
	Dermal Contact	2.4×10^{-7}		0.02	
	Inhalation of Volatiles	4.5×10^{-6}		< 0.01	
	Total Risk	4.3×10^{-5}		Total HI	1.3
Radionuclides	Ingestion	7.1×10^{-3}		--	
	Immersion	1.4×10^{-10}			
	Inhalation of Volatiles	7.0×10^{-4}			
	Total Risk	7.8×10^{-3}			
Total Cumulative ELCR		7.8×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-184 is 7.8×10^{-3}. The total ELCR for nonradiological analytes is 4.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 7.8×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 5.0×10^{-6}, 0.06 percent contribution), strontium-90 (ELCR = 7.1×10^{-3}, 90 percent contribution), and tritium (ELCR = 7.1×10^{-4}, 9.0 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.8×10^{-5}, 0.49 percent contribution) where the EPC (2.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-184 without contribution from arsenic is 5.0×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-184 is 1.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are antimony (HQ = 0.14, 11 percent contribution), arsenic (HQ = 0.33, 26 percent contribution), molybdenum (HQ = 0.10, 7.7 percent contribution), and nitrate (HQ = 0.44, 34 percent contribution). The HI for well 199-N-184 without contribution from arsenic is 0.96, which is less than the target HI of 1.

Well 199-N-186. Table 7-45 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-186.

Table 7-45. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-186 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.9×10^{-5}	Arsenic, (ELCR = 1.8×10^{-5}, 0.61%) Chloroform, (ELCR = 4.8×10^{-6}, 0.16%) Strontium-90, (ELCR = 6.8×10^{-4}, 23%) Tritium, (ELCR = 2.3×10^{-3}, 76%)	4.6	Arsenic, (HQ = 0.16, 3.3%) Nitrate, (HQ = 0.97, 21%) Thallium, (HQ = 3.0, 64%) Uranium, (HQ = 0.10, 2.0%)
	Dermal Contact	1.4×10^{-7}		0.06	
	Inhalation of Volatiles	4.4×10^{-6}		0.04	
	Total Risk	2.3×10^{-5}		Total HI	4.7
Radionuclides	Ingestion	7.2×10^{-4}		--	
	Immersion	1.4×10^{-11}			
	Inhalation of Volatiles	2.3×10^{-3}			
	Total Risk	3.0×10^{-3}			
Total Cumulative ELCR		3.0×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-186 is 3.0×10^{-3}. The total ELCR for nonradiological analytes is 2.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 3.0×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 4.8×10^{-6}, 0.16 percent contribution), strontium-90 (ELCR = 6.8×10^{-4}, 23 percent contribution), and tritium (ELCR = 2.3×10^{-3}, 76 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.8×10^{-5}, 0.61 percent contribution) where the EPC (0.94 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-186 without contribution from arsenic is 4.8×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-186 is 4.7, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.16, 3.3 percent contribution), nitrate (HQ = 0.97, 21 percent contribution), thallium (HQ = 3.0, 64 percent contribution), and uranium (HQ = 0.10, 2.0 percent contribution). Contribution to HI is elevated for thallium (HQ = 3.0) where the EPC (0.60 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-186 without contribution from arsenic and thallium is 1.5, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Nitrate: early clinical signs of methemoglobinemia
- Uranium: Initial body weight loss and moderate nephrotoxicity

Exposure to each of the analytes that contribute to the HI of 1.5 results in a different critical effect. Nitrate has an HQ of 0.97, which is less than the target HI of 1.

Well 199-N-187. Table 7-46 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-187.

Table 7-46. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-187 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.0×10^{-5}	Arsenic, (ELCR = 1.9×10^{-5}, 0.11%) Chloroform, (ELCR = 5.7×10^{-6}, 0.03%) Strontium-90, (ELCR = 1.7×10^{-2}, 94%) Tritium, (ELCR = 1.0×10^{-3}, 5.7%)	4.8	Arsenic, (HQ = 0.17, 1.5%) Cyanide, (HQ = 3.6, 33%) Ethylene glycol, (HQ = 0.15, 1.4%) Methanol, (HQ = 5.9, 54%) Nitrate, (HQ = 0.72, 6.6%)
	Dermal Contact	1.5×10^{-7}		0.04	
	Inhalation of Volatiles	5.2×10^{-6}		6.0	
	Total Risk	2.5×10^{-5}		Total HI	11
Radionuclides	Ingestion	1.7×10^{-2}		--	
	Immersion	3.3×10^{-10}			

Table 7-46. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-187 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	1.0×10^{-3}			
	Total Risk	1.8×10^{-2}			
Total Cumulative ELCR		1.8×10^{-2}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-187 is 1.8×10^{-2}. The total ELCR for nonradiological analytes is 2.5×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.8×10^{-2}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 5.7×10^{-6}, 0.03 percent contribution), strontium-90 (ELCR = 1.7×10^{-2}, 94 percent contribution), and tritium (ELCR = 1.0×10^{-3}, 5.7 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.9×10^{-5}, 0.11 percent contribution) where the EPC (1.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-187 without contribution from arsenic is 5.7×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-187 is 11, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.17, 1.5 percent contribution), cyanide (HQ = 3.6, 33 percent contribution), ethylene glycol (HQ = 0.15, 1.4 percent contribution), methanol (HQ = 5.9, 54 percent contribution), and nitrate (HQ = 0.72, 6.6 percent contribution). The HI for well 199-N-187 without contribution from arsenic is 11, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cyanide: reproductive; decreased cauda epididymis weight in male F344/N rat
- Ethylene glycol: urinary, idney toxicity
- Methanol: nervous, developmental; extra cervical ribs, reduced brain weight in rate pups at 6 weeks of age
- Nitrate: early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 11 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Cyanide and methanol both report individual HQs greater than 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-188. Table 7-47 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-188.

Table 7-47. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-188 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	6.4×10^{-5}	Arsenic, (ELCR = 5.8×10^{-5}, 1.4%) Bis(2-ethylhexyl) phthalate, (ELCR = 4.1×10^{-5}, 0.98%) Bromodichloromethane, (ELCR = 1.0×10^{-6}, 0.03%) Chloroform, (ELCR = 1.6×10^{-5}, 0.39%) Strontium-90, (ELCR = 3.4×10^{-3}, 81%) Toxaphene, (ELCR = 2.0×10^{-5}, 0.49%) Tritium, (ELCR = 6.5×10^{-4}, 16%)	4.4	Arsenic, (HQ = 0.50, 9.8%) Bis(2-ethylhexyl) phthalate, (HQ = 0.52, 10%) Hexavalent Chromium, (HQ = 0.25, 4.9%) Nitrate, (HQ = 0.21, 4.0%) Thallium, (HQ = 3.1, 61%) Vanadium, (HQ = 0.10, 1.9%)
	Dermal Contact	5.7×10^{-5}		0.62	
	Inhalation of Volatiles	1.5×10^{-5}		0.08	
	Total Risk	1.4×10^{-4}		Total HI	5.1
Radionuclides	Ingestion	3.4×10^{-3}		--	
	Immersion	6.6×10^{-11}			
	Inhalation of Volatiles	6.4×10^{-4}			
	Total Risk	4.0×10^{-3}			
Total Cumulative ELCR		4.2×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-188 is 4.2×10^{-3}. The total ELCR for nonradiological analytes is 1.4×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.0×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are bis(2-ethylhexyl) phthalate (ELCR = 4.1×10^{-5}, 0.98 percent contribution), bromodichloromethane (ELCR = 1.0×10^{-6}, 0.03 percent contribution), chloroform (ELCR = 1.6×10^{-5}, 0.39 percent contribution), strontium-90 (ELCR = 3.4×10^{-3}, 81 percent contribution), toxaphene (ELCR = 2.0×10^{-5}, 0.49 percent contribution), and tritium (ELCR = 6.5×10^{-4}, 16 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 5.8×10^{-5}, 1.4 percent contribution) where the EPC (3.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-188 without contribution from arsenic is 7.9×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-188 is 5.1, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.50, 9.8 percent contribution), bis(2-ethylhexyl) phthalate (HQ = 0.52, 10 percent contribution), hexavalent chromium (HQ = 0.25, 4.9 percent contribution), nitrate (HQ = 0.21, 4.0 percent contribution), thallium (HQ = 3.1, 61 percent contribution), and vanadium (HQ = 0.10, 1.9 percent contribution). Contribution to HI is elevated for thallium (HQ = 3.1) where the EPC (0.62 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-188 without contribution from arsenic and thallium is 1.5, which is greater than the target HI of 1

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Bis(2-ethylhexyl) phthalate: Increased relative liver weight
- Hexavalent Chromium: Nasal septum atrophy
- Nitrate: Early clinical signs of methemoglobinemia
- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.5 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Thallium has an HQ of 3.1, which is greater than the target HI of 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-189. Table 7-48 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-189.

Table 7-48. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-189 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.4×10^{-4}	Arsenic, (ELCR = 1.4×10^{-4}, 34%) Chloroform, (ELCR = 9.1×10^{-6}, 2.2%) Tritium, (ELCR = 2.6×10^{-4}, 63%)	2.8	Arsenic, (HQ = 1.2, 38%) Fluoride, (HQ = 0.30, 9.5%) Hexavalent Chromium, (HQ = 1.1, 35%) Vanadium, (HQ = 0.26, 8.1%)
	Dermal Contact	8.1×10^{-7}		0.33	
	Inhalation of Volatiles	8.2×10^{-6}		< 0.01	
	Total Risk	1.5×10^{-4}		Total HI	3.2
Radionuclides	Ingestion	6.3×10^{-6}		--	
	Immersion	1.4×10^{-13}			
	Inhalation of Volatiles	2.6×10^{-4}			
	Total Risk	2.6×10^{-4}			
Total Cumulative ELCR		4.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-189 is 4.1×10^{-4}. The total ELCR for nonradiological analytes is 1.5×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.6×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 9.1×10^{-6}, 2.2 percent contribution) and tritium (ELCR = 2.6×10^{-4}, 63 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.4×10^{-4}, 34 percent contribution) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-189 without contribution from arsenic is 9.1×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-189 is 3.2, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.2, 38 percent contribution), fluoride (HQ = 0.30, 9.5 percent contribution), hexavalent chromium (HQ = 1.1, 35 percent contribution), and vanadium (HQ = 0.26, 8.1 percent contribution). The HI for well 199-N-189 without contribution from arsenic is 2.0, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 2.0 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Hexavalent Chromium has an HQ of 1.1, which is greater than the target HI of 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-373. Table 7-49 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-373.

Table 7-49. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-373 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.1×10^{-5}	Arsenic, (ELCR = 7.0×10^{-5}, 39%) Chloroform, (ELCR = 1.6×10^{-5}, 8.9%)	2.2	Arsenic, (HQ = 0.61, 27%) Cobalt, (HQ = 0.11, 4.8%) Fluoride, (HQ = 0.29, 13%) Hexavalent Chromium, (HQ = 0.11, 5.0%) Manganese, (HQ = 0.12, 5.4%) Nitrate, (HQ = 0.53, 23%) Uranium, (HQ = 0.10, 4.6%) Vanadium, (HQ = 0.11, 5.1%)
	Dermal Contact	4.9×10^{-7}		0.07	
	Inhalation of Volatiles	1.4×10^{-5}		0.02	
	Total Risk	8.6×10^{-5}		Total HI	2.3

Table 7-49. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-373 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Ingestion	1.3×10^{-6}		--	
	Immersion	--			
	Inhalation of Volatiles	9.3×10^{-5}			
	Total Risk	9.4×10^{-5}			
Total Cumulative ELCR		1.8×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-373 is 1.8×10^{-4}. The total ELCR for nonradiological analytes is 8.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.4×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 1.6×10^{-5}, 8.9 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 7.0×10^{-5}, 39 percent contribution) where the EPC (3.6 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-373 without contribution from arsenic is 1.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-373 is 2.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.61, 27 percent contribution), cobalt (HQ = 0.11, 4.8 percent contribution), fluoride (HQ = 0.29, 13 percent contribution), hexavalent chromium (HQ = 0.11, 5.0 percent contribution), manganese (HQ = 0.12, 5.4 percent contribution), nitrate (HQ = 0.53, 23 percent contribution), uranium (HQ = 0.10, 4.6 percent contribution), and vanadium (HQ = 0.11, 5.1 percent contribution). The HI for well 199-N-373 without contribution from arsenic is 1.7, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Manganese: Nervous system effects
- Nitrate: early clinical signs of methemoglobinemia
- Uranium: initial body weight loss and moderate nephrotoxicity
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.7 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-377. Table 7-50 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-377.

Table 7-50. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-377 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.8×10^{-5}	Arsenic, (ELCR = 1.7×10^{-5}, 7.0%) Chloroform, (ELCR = 9.1×10^{-6}, 3.8%) Indeno(1,2,3-cd)pyrene, (ELCR = 1.4×10^{-6}, 0.58%) Tritium, (ELCR = 1.6×10^{-4}, 68%)	1.9	Arsenic, (HQ = 0.15, 7.2%) Cobalt, (HQ = 0.20, 10%) Fluoride, (HQ = 0.12, 6.1%) Manganese, (HQ = 0.21, 11%) Nickel, (HQ = 0.22, 11%) Nitrate, (HQ = 0.47, 23%) Thallium, (HQ = 0.28, 14%)
	Dermal Contact	1.5×10^{-6}		0.05	
	Inhalation of Volatiles	8.2×10^{-6}		0.03	
	Total Risk	2.7×10^{-5}		Total HI	2.0
Radionuclides	Ingestion	5.3×10^{-5}		--	
	Immersion	9.8×10^{-13}			
	Inhalation of Volatiles	1.6×10^{-4}			
	Total Risk	2.1×10^{-4}			
Total Cumulative ELCR		2.4×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-377 is 2.4×10^{-4}. The total ELCR for nonradiological analytes is 2.7×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 2.1×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 9.1×10^{-6}, 3.8 percent contribution), indeno(1,2,3-cd)pyrene (ELCR = 1.4×10^{-6}, 0.58 percent contribution), and tritium (ELCR = 1.6×10^{-4}, 68 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.7×10^{-5}, 7.0 percent contribution) where the EPC (0.87 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-377 without contribution from arsenic is 1.0×10^{-5}, which is equal to the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-377 is 2.0, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.15, 7.2 percent contribution), cobalt (HQ = 0.20, 10 percent contribution), fluoride (HQ = 0.12, 6.1 percent contribution), manganese (HQ = 0.21, 11 percent contribution), nickel (HQ = 0.22, 11 percent contribution), nitrate (HQ = 0.47, 23 percent contribution), and thallium (HQ = 0.28, 14 percent contribution). Contribution to HI is elevated for thallium (HQ = 0.28) where the EPC (0.056 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-377 without contribution from arsenic and thallium is 1.6, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Cobalt: thyroid, decreased iodine uptake
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Manganese: nervous system effects
- Nickel: decreased body and organ weights
- Nitrate: early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 1.6 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 699-73-61. Table 7-51 provides a summary of the cancer risks and noncancer hazards by exposure route for well 699-73-61.

Table 7-51. Summary of Cancer Risks and Noncancer Hazards for Well 699-73-61 – Monitoring Wells Screened Across Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.43	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.43
	Ingestion	6.8×10^{-7}		--	

Table 7-51. Summary of Cancer Risks and Noncancer Hazards for Well 699-73-61 – Monitoring Wells Screened Across Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Immersion	5.1×10^{-15}			
	Inhalation of Volatiles	--			
	Total Risk	6.8×10^{-7}			
Total Cumulative ELCR		6.8×10^{-7}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 699-73-61 is 6.8×10^{-7}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 6.8×10^{-7}, which is less than the EPA lower risk threshold of 1×10^{-6}.

There are no major risk contributors.

The HI for well 699-73-61 is 0.43, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 699-77-54. Table 7-52 provides a summary of the cancer risks and noncancer hazards by exposure route for well 699-77-54.

Table 7-52. Summary of Cancer Risks and Noncancer Hazards for Well 699-77-54 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.3×10^{-6}	Chloroform, (ELCR = 3.7×10^{-6}, 18%) Trichloroethene, (ELCR = 1.7×10^{-5}, 82%)	2.2	Fluoride, (HQ = 0.27, 5.0%) Hexavalent Chromium, (HQ = 0.55, 10%) Trichloroethene, (HQ = 4.2, 78%) Vanadium, (HQ = 0.24, 4.5%)
	Dermal Contact	1.2×10^{-6}		0.36	
	Inhalation of Volatiles	1.2×10^{-5}		2.8	
	Total Risk	2.0×10^{-5}		Total HI	5.3
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			

Table 7-52. Summary of Cancer Risks and Noncancer Hazards for Well 699-77-54 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Total Risk	--			
Total Cumulative ELCR		2.0×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 699-77-54 is 2.0×10^{-5}. The total ELCR for nonradiological analytes is 2.0×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 3.7×10^{-6}, 18 percent contribution) and trichloroethene (ELCR = 1.7×10^{-5}, 82 percent contribution). Arsenic was not reported at well 699-77-54.

The HI for well 699-77-54 is 5.3, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are fluoride (HQ = 0.27, 5.0 percent contribution), hexavalent chromium (HQ = 0.55, 10 percent contribution), trichloroethene (HQ = 4.2, 78 percent contribution), and vanadium (HQ = 0.24, 4.5 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: Objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: Nasal septum atrophy
- Trichloroethene: Developmental immunotoxicity
- Vanadium: Decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 5.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Trichloroethene has an HQ of 4.2, which is greater than the target HI of 1; evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 699-78-62. Table 7-53 provides a summary of the cancer risks and noncancer hazards by exposure route for well 699-78-62.

Table 7-53. Summary of Cancer Risks and Noncancer Hazards for Well 699-78-62 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Tritium, (ELCR = 1.6×10^{-4}, 100%)	0.48	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	

Table 7-53. Summary of Cancer Risks and Noncancer Hazards for Well 699-78-62 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Total Risk	--		Total HI	0.50
Radionuclides	Ingestion	2.2×10^{-6}		--	
	Immersion	--			
	Inhalation of Volatiles	1.6×10^{-4}			
	Total Risk	1.6×10^{-4}			
Total Cumulative ELCR		1.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 699-78-62 is 1.6×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.6×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 1.6×10^{-4}, 100 percent contribution).

The HI for well 699-78-62 is 0.50, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 699-84-59. Table 7-54 provides a summary of the cancer risks and noncancer hazards by exposure route for well 699-84-59.

Table 7-54. Summary of Cancer Risks and Noncancer Hazards for Well 699-84-59 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	1.1	Iron, (HQ = 0.63, 55%) Manganese, (HQ = 0.26, 23%) Strontium, (HQ = 0.10, 8.4%)
	Dermal Contact	--		0.03	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	1.1
	Ingestion	--		--	

Table 7-54. Summary of Cancer Risks and Noncancer Hazards for Well 699-84-59 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		--			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

There were no radiological or carcinogenic nonradiological analytes measured in well 699-84-59; therefore, cancer risks are not reported for this well.

There are no major risk contributors.

The HI for well 699-84-59 is 1.1, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are iron (HQ = 0.63, 55 percent contribution), manganese (HQ = 0.26, 23 percent contribution), and strontium (HQ = 0.10, 8.4 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Iron: GI tract; adverse gastrointestinal effects
- Manganese: Nervous system effects
- Strontium: Rachitic bone

Exposure to each of the analytes that contribute to the HI of 1.1 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 699-87-55. Table 7-55 provides a summary of the cancer risks and noncancer hazards by exposure route for well 699-87-55.

Table 7-55. Summary of Cancer Risks and Noncancer Hazards for Well 699-87-55 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.0×10^{-7}	--	0.75	--
	Dermal Contact	1.5×10^{-8}		0.10	
	Inhalation of Volatiles	9.7×10^{-7}		< 0.01	

Table 7-55. Summary of Cancer Risks and Noncancer Hazards for Well 699-87-55 – Monitoring Well Screened at the Top of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Total Risk	1.1×10^{-6}		Total HI	0.86
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		1.1×10^{-6}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 699-87-55 is 1.1×10^{-6}. The total ELCR for nonradiological analytes is 1.1×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

There are no major risk contributors.

The HI for well 699-87-55 is 0.86, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.2 Monitoring Wells Screened Across the Entire Unconfined Aquifer

Four monitoring wells are screened across the entire unconfined aquifer. A summary of the cancer risks and noncancer hazards by exposure route for these wells follows.

Well 199-N-371. Table 7-56 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-371.

Table 7-56. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-371 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.3×10^{-4}	Arsenic, (ELCR = 1.3×10^{-4}, 53%) Chloroform, (ELCR = 1.8×10^{-5}, 7.3%)	2.8	Arsenic, (HQ = 1.1, 39%) Fluoride, (HQ = 0.43, 15%)

Table 7-56. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-371 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Dermal Contact	8.3×10^{-7}	Tritium, (ELCR = 9.8×10^{-5}, 40%)	0.07	Hexavalent Chromium, (HQ = 0.10, 3.3%) Nitrate, (HQ = 0.24, 8.3%) Thallium, (HQ = 0.55, 19%) Vanadium, (HQ = 0.18, 6.1%)
	Inhalation of Volatiles	1.6×10^{-5}		0.02	
	Total Risk	1.5×10^{-4}		Total HI	2.9
Radionuclides	Ingestion	1.4×10^{-6}		--	
	Immersion	--			
	Inhalation of Volatiles	9.6×10^{-5}			
	Total Risk	9.8×10^{-5}			
Total Cumulative ELCR		2.5×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-371 is 2.5×10^{-4}. The total ELCR for nonradiological analytes is 1.5×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.8×10^{-5}, which is equal to the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 1.8×10^{-5}, 7.3 percent contribution) and tritium (ELCR = 9.8×10^{-5}, 40 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.3×10^{-4}, 53 percent contribution) where the EPC (6.8 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-371

without contribution from arsenic is 1.8×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-371 is 2.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.1, 39 percent contribution), fluoride (HQ = 0.43, 15 percent contribution), hexavalent chromium (HQ = 0.10, 3.3 percent contribution), nitrate (HQ = 0.24, 8.3 percent contribution), thallium (HQ = 0.55, 19 percent contribution), and vanadium (HQ = 0.18, 6.1 percent contribution). Contribution to HI is elevated for thallium (HQ = 0.55) where the EPC (0.11 µg/L) is less than the 90th percentile Hanford site background value of 1.67 µg/L. The HI for well 199-N-371 without contribution from arsenic and thallium is 1.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-372. Table 7-57 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-372.

Table 7-57. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-372 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.5×10^{-4}	Arsenic, (ELCR = 1.5×10^{-4}, 68%) Chloroform, (ELCR = 2.3×10^{-5}, 11%)	2.5	Arsenic, (HQ = 1.3, 49%) Fluoride, (HQ = 0.43, 17%) Hexavalent Chromium, (HQ = 0.12, 4.7%) Nitrate, (HQ = 0.27, 11%) Vanadium, (HQ = 0.21, 8.3%)
	Dermal Contact	9.5×10^{-7}		0.08	
	Inhalation of Volatiles	2.1×10^{-5}		0.02	
	Total Risk	1.7×10^{-4}		Total HI	2.6
Radionuclides	Ingestion	6.5×10^{-7}		--	
	Immersion	--			

Table 7-57. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-372 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	4.6×10^{-5}			
	Total Risk	4.6×10^{-5}			
Total Cumulative ELCR		2.2×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-372 is 2.2×10^{-4}. The total ELCR for nonradiological analytes is 1.7×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.6×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 2.3×10^{-5}, 11 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.5×10^{-4}, 68 percent contribution) where the EPC (7.6 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-372 without contribution from arsenic is 2.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-372 is 2.6, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.3, 49 percent contribution), fluoride (HQ = 0.43, 17 percent contribution), hexavalent chromium (HQ = 0.12, 4.7 percent contribution), nitrate (HQ = 0.27, 11 percent contribution), and vanadium (HQ = 0.21, 8.3 percent contribution). The HI for well 199-N-372 without contribution from arsenic is 1.3, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.3 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-374. Table 7-58 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-374.

Table 7-58. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-374 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.7×10^{-4}	Arsenic, (ELCR = 1.7×10^{-4}, 2.1%) Chloroform, (ELCR = 2.0×10^{-5}, 0.24%) Tritium, (ELCR = 8.0×10^{-3}, 97%)	2.8	Arsenic, (HQ = 1.5, 50%) Fluoride, (HQ = 0.45, 16%) Hexavalent Chromium, (HQ = 0.12, 4.0%) Nitrate, (HQ = 0.38, 13%) Vanadium, (HQ = 0.23, 7.9%)
	Dermal Contact	1.1×10^{-6}		0.08	
	Inhalation of Volatiles	1.8×10^{-5}		0.02	
	Total Risk	1.9×10^{-4}		Total HI	2.9
Radionuclides	Ingestion	1.3×10^{-4}		--	
	Immersion	4.0×10^{-13}			
	Inhalation of Volatiles	7.9×10^{-3}			
	Total Risk	8.0×10^{-3}			
Total Cumulative ELCR		8.2×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-374 is 8.2×10^{-3}. The total ELCR for nonradiological analytes is 1.9×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 8.0×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 2.0×10^{-5}, 0.24 percent contribution) and tritium (ELCR = 8.0×10^{-3}, 97 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.7×10^{-4}, 2.1 percent contribution) where the EPC (8.8 µg/L) is within the range of natural background values for arsenic (0.5 µg/L to 8.8 µg/L). The nonradiological ELCR for well 199-N-374 without contribution from arsenic is 2.0×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-374 is 2.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.5, 50 percent contribution), fluoride (HQ = 0.45, 16 percent contribution), hexavalent chromium (HQ = 0.12, 4.0 percent contribution), nitrate (HQ = 0.38, 13 percent contribution), and vanadium (HQ = 0.23, 7.9 percent contribution). The HI for well 199-N-374 without contribution from arsenic is 1.4, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.4 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-376. Table 7-59 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-376.

Table 7-59. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-376 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.8×10^{-4}	Arsenic, (ELCR = 2.8×10^{-4}, 69%) Chloroform, (ELCR = 1.0×10^{-5}, 2.6%) Tritium, (ELCR = 1.1×10^{-4}, 28%)	4.3	Arsenic, (HQ = 2.4, 54%) Fluoride, (HQ = 0.97, 22%) Molybdenum, (HQ = 0.20, 4.5%) Nitrate, (HQ = 0.17, 3.8%) Vanadium, (HQ = 0.40, 9.2%)
	Dermal Contact	1.6×10^{-6}		0.10	
	Inhalation of Volatiles	9.4×10^{-6}		0.01	
	Total Risk	2.9×10^{-4}		Total HI	4.4
Radionuclides	Ingestion	4.5×10^{-6}		--	
	Immersion	5.7×10^{-14}			
	Inhalation of Volatiles	1.1×10^{-4}			
	Total Risk	1.1×10^{-4}			

Table 7-59. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-376 – Monitoring Well Screened Across the Entire Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		4.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-376 is 4.0×10^{-4}. The total ELCR for nonradiological analytes is 2.9×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.1×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 1.0×10^{-5}, 2.6 percent contribution) and tritium (ELCR = 1.1×10^{-4}, 28 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 2.8×10^{-4}, 69 percent contribution) where the EPC (14 µg/L) is greater than the range of natural background values for arsenic (0.5 µg/L to 8.8 µg/L). The nonradiological ELCR for well 199-N-376 without contribution from arsenic is 1.0×10^{-5}, which is equal to the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-376 is 4.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 2.4, 54 percent contribution), fluoride (HQ = 0.97, 22 percent contribution), molybdenum (HQ = 0.20, 4.5 percent contribution), nitrate (HQ = 0.17, 3.8 percent contribution), and vanadium (HQ = 0.40, 9.2 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Arsenic: hyperpigmentation, keratosis and possible vascular complications
- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Molybdenum: increased uric acid levels
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 4.4 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Arsenic reports a HQ of 2.4 which is greater than the target HI of 1. Evaluating each of the analytes individually results in an HI less than 1.

7.3 Monitoring Wells Screened at the Bottom of the Unconfined Aquifer

Four monitoring wells are screened at the bottom of the unconfined aquifer. A summary of the cancer risks and noncancer hazards by exposure route for these wells follows.

Well 199-N-69. Table 7-60 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-69.

Table 7-60. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-69 – Monitoring Well Screened at the Bottom of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Tritium, (ELCR = 7.5 x 10^{-4}, 98%)	1.0	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	1.0
Radionuclides	Ingestion	2.6 x 10^{-5}		--	
	Immersion	3.1 x 10^{-13}			
	Inhalation of Volatiles	7.4 x 10^{-4}			
	Total Risk	7.6 x 10^{-4}			
Total Cumulative ELCR		7.6 x 10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-69 is 7.6 × 10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 7.6 × 10^{-4}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 7.5 x 10^{-4}, 98 percent contribution).

The HI for well 199-N-69 is 1.0, which is equal to the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-70. Table 7-61 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-70.

Table 7-61. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-70 – Monitoring Well Screened at the Bottom of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	9.8 x 10^{-5}	Arsenic, (ELCR = 9.9 x 10^{-5}, 10%) Tritium, (ELCR = 8.7 x 10^{-4}, 90%)	1.5	Arsenic, (HQ = 0.85, 57%) Fluoride, (HQ = 0.13, 8.5%) Nitrate, (HQ = 0.22, 14%)
	Dermal Contact	5.2 x 10^{-7}		0.03	

Table 7-61. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-70 – Monitoring Well Screened at the Bottom of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--		--	Vanadium, (HQ = 0.17, 12%)
	Total Risk	9.9×10^{-5}		Total HI	1.5
Radionuclides	Ingestion	1.4×10^{-5}		--	
	Immersion	3.3×10^{-14}			
	Inhalation of Volatiles	8.6×10^{-4}			
	Total Risk	8.7×10^{-4}			
Total Cumulative ELCR		9.7×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-70 is 9.7×10^{-4}. The total ELCR for nonradiological analytes is 9.9×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 8.7×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 8.7×10^{-4}, 90 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 9.9×10^{-5}, 10 percent contribution) where the EPC (5.1 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-70 when contribution from arsenic is not included.

The HI for well 199-N-70 is 1.5, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 0.85, 57 percent contribution), fluoride (HQ = 0.13, 8.5 percent contribution), nitrate (HQ = 0.22, 14 percent contribution), and vanadium (HQ = 0.17, 12 percent contribution). The HI for well 199-N-70 without contribution from arsenic is 0.65, which is less than the target HI of 1.

Well 199-N-77. Table 7-62 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-77.

Table 7-62. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-77 – Monitoring Well Screened at the Bottom of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.0×10^{-6}	Chloroform, (ELCR = 2.2×10^{-5}, 100%)	1.3	Fluoride, (HQ = 0.51, 37%) Nitrate, (HQ = 0.26, 19%) Vanadium, (HQ = 0.49, 36%)
	Dermal Contact	1.7×10^{-7}		0.08	
	Inhalation of Volatiles	2.0×10^{-5}		0.02	
	Total Risk	2.2×10^{-5}		Total HI	1.4
Radionuclides	Ingestion	--		--	
	Immersion	--			
	Inhalation of Volatiles	--			
	Total Risk	--			
Total Cumulative ELCR		2.2×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-77 is 2.2×10^{-5}. The total ELCR for nonradiological analytes is 2.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. Radiological analytes were not measured; therefore, a total ELCR for radiological analytes is not reported.

The major contributor to the total cumulative ELCR is chloroform (ELCR = 2.2×10^{-5}, 100 percent contribution). Arsenic was not reported at well 199-N-77.

The HI for well 199-N-77 is 1.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are fluoride (HQ = 0.51, 37 percent contribution), nitrate (HQ = 0.26, 19 percent contribution), and vanadium (HQ = 0.49, 36 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Nitrate: early clinical signs of methemoglobinemia
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 1.4 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Evaluating each of the analytes individually results in an HI less than 1.

Well 199-N-182. Table 7-63 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-182.

Table 7-63. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-182 – Monitoring Well Screened at the Bottom of the Unconfined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.9×10^{-5}	Arsenic, (ELCR = 2.8×10^{-5}, 2.8%) Chloroform, (ELCR = 6.3×10^{-6}, 0.63%) Strontium-90, (ELCR = 2.0×10^{-4}, 20%) Tritium, (ELCR = 7.7×10^{-4}, 76%)	1.0	--
	Dermal Contact	2.0×10^{-7}		0.01	
	Inhalation of Volatiles	5.7×10^{-6}		< 0.01	
	Total Risk	3.5×10^{-5}		Total HI	1.0
Radionuclides	Ingestion	2.1×10^{-4}		--	
	Immersion	4.0×10^{-12}			
	Inhalation of Volatiles	7.6×10^{-4}			
	Total Risk	9.8×10^{-4}			
Total Cumulative ELCR		1.0×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-182 is 1.0×10^{-3}. The total ELCR for nonradiological analytes is 3.5×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.8×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 6.3×10^{-6}, 0.63 percent contribution), strontium-90 (ELCR = 2.0×10^{-4}, 20 percent contribution), and tritium (ELCR = 7.7×10^{-4}, 76 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 2.8×10^{-5}, 2.8 percent contribution) where the EPC (1.5 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-182 without contribution from arsenic is 6.3×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.

The HI for well 199-N-182 is 1.0, which is equal to the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.4 Monitoring Well 199-N-80 Screened in the Confined Aquifer

One monitoring well is screened in the confined aquifer. A summary of the cancer risks and noncancer hazards by exposure route for this well follows.

Well 199-N-80. Table 7-64 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-80.

Table 7-64. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-80 – Monitoring Well Screened in the Confined Aquifer

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.6×10^{-4}	Arsenic, (ELCR = 1.6×10^{-4}, 16%) Tritium, (ELCR = 8.6×10^{-4}, 84%)	5.3	Arsenic, (HQ = 1.4, 22%) Fluoride, (HQ = 0.25, 4.0%) Hexavalent Chromium, (HQ = 4.1, 64%) Molybdenum, (HQ = 0.13, 2.1%) Vanadium, (HQ = 0.18, 2.8%)
	Dermal Contact	8.5×10^{-7}		1.1	
	Inhalation of Volatiles	--		--	
	Total Risk	1.6×10^{-4}		Total HI	6.4
Radionuclides	Ingestion	1.4×10^{-5}		--	
	Immersion	4.5×10^{-14}			
	Inhalation of Volatiles	8.4×10^{-4}			
	Total Risk	8.6×10^{-4}			
Total Cumulative ELCR		1.0×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-80 is 1.0×10^{-3}. The total ELCR for nonradiological analytes is 1.6×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 8.6×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 8.6×10^{-4}, 84 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.6×10^{-4}, 16 percent contribution) where the EPC (8.3 µg/L) is within the range of natural background values for arsenic (0.5 µg/L to 8.8 µg/L). A total ELCR for nonradiological analytes is not reported for well 199-N-80 when contribution from arsenic is not included.

The HI for well 199-N-80 is 6.4, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are arsenic (HQ = 1.4, 22 percent contribution), fluoride (HQ = 0.25, 4.0 percent contribution), hexavalent chromium (HQ = 4.1, 64 percent contribution), molybdenum (HQ = 0.13, 2.1 percent contribution), and vanadium (HQ = 0.18, 2.8 percent contribution). The HI for well 199-N-80 without contribution from arsenic is 5.0, which is greater than the target HI of 1.

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Hexavalent Chromium: nasal septum atrophy
- Molybdenum: increased uric acid levels
- Vanadium: decreased hair cysteine

Exposure to each of the analytes that contribute to the HI of 5.0 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Hexavalent Chromium has an individual HQ of 4.1, which is greater than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

7.5 Monitoring Well 199-N-185 Screened in the Ringold Upper Mud

One monitoring well is screened in the Ringold Upper Mud. A summary of the cancer risks and noncancer hazards by exposure route for this well follows.

Well 199-N-185. Table 7-65 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-185.

Table 7-65. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-185 – Monitoring Well Screened in the Ringold Upper Mud

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.9×10^{-5}	Arsenic, (ELCR = 3.9×10^{-5}, 4.5%) Chloroform, (ELCR = 7.2×10^{-6}, 0.84%) Tritium, (ELCR = 8.0×10^{-4}, 93%)	0.89	--
	Dermal Contact	2.6×10^{-7}		0.02	
	Inhalation of Volatiles	6.6×10^{-6}		< 0.01	
	Total Risk	4.6×10^{-5}		Total HI	0.92
Radionuclides	Ingestion	2.8×10^{-5}		--	
	Immersion	3.7×10^{-13}			
	Inhalation of Volatiles	7.9×10^{-4}			
	Total Risk	8.1×10^{-4}			

Table 7-65. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-185 – Monitoring Well Screened in the Ringold Upper Mud

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		8.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-185 is 8.6×10^{-4}. The total ELCR for nonradiological analytes is 4.6×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 8.1×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are chloroform (ELCR = 7.2×10^{-6}, 0.84 percent contribution) and tritium (ELCR = 8.0×10^{-4}, 93 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.9×10^{-5}, 4.5 percent contribution) where the EPC (2.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. The nonradiological ELCR for well 199-N-185 without contribution from arsenic is 7.2×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}.
The HI for well 199-N-185 is 0.92, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.6 PRB Monitoring Wells Screened Below Water Table

Fifteen PRB monitoring wells are screened below water table. A summary of the cancer risks and noncancer hazards by exposure route for each individual well follows.

Well 199-N-346. Table 7-66 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-346.

Table 7-66. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-346 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.0×10^{-5}	Bis(2-ethylhexyl) phthalate, (ELCR = 4.2×10^{-4}, 75%) Butylbenzylphthalate, (ELCR = 8.7×10^{-6}, 1.6%) Chloroform, (ELCR = 1.5×10^{-6}, 0.27%) Tritium, (ELCR = 1.2×10^{-4}, 22%)	10	Bis(2-ethylhexyl) phthalate, (HQ = 5.3, 32%) Iron, (HQ = 0.30, 1.8%) Manganese, (HQ = 10, 62%) Nitrate, (HQ = 0.14, 0.86%)
	Dermal Contact	4.2×10^{-4}		6.3	
	Inhalation of Volatiles	1.4×10^{-6}		0.02	
	Total Risk	4.3×10^{-4}		Total HI	16
Radionuclides	Ingestion	1.1×10^{-5}		--	

Table 7-66. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-346 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Immersion	1.7×10^{-13}			
	Inhalation of Volatiles	1.2×10^{-4}			
	Total Risk	1.3×10^{-4}			
Total Cumulative ELCR		5.6×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-346 is 5.6×10^{-4}. The total ELCR for nonradiological analytes is 4.3×10^{-4}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.3×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are bis(2-ethylhexyl) phthalate (ELCR = 4.2×10^{-4}, 75 percent contribution), butylbenzylphthalate (ELCR = 8.7×10^{-6}, 1.6 percent contribution), chloroform (ELCR = 1.5×10^{-6}, 0.27 percent contribution), and tritium (ELCR = 1.2×10^{-4}, 22 percent contribution). Arsenic was not reported at well 199-N-346.

The HI for well 199-N-346 is 16, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are bis(2-ethylhexyl) phthalate (HQ = 5.3, 32 percent contribution), iron (HQ = 0.30, 1.8 percent contribution), manganese (HQ = 10, 62 percent contribution), and nitrate (HQ = 0.14, 0.86 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Bis(2-ethylhexyl) phthalate: increased relative liver weight
- Iron: GI tract; adverse gastrointestinal effects
- Manganese: nervous system effects
- Nitrate: early clinical signs of methemoglobinemia

Bis(2-ethylhexyl) phthalate has an individual HQ of 5.3 which is greater than the target HI of 1. Manganese has an individual HQ of 10 which is greater than the target HI of 1. Evaluating the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-354. Table 7-67 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-354.

Table 7-67. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-354 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Tritium, (ELCR = 5.7×10^{-4}, 97%)	0.69	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.70
Radionuclides	Ingestion	2.7×10^{-5}		--	
	Immersion	3.7×10^{-13}			
	Inhalation of Volatiles	5.6×10^{-4}			
	Total Risk	5.9×10^{-4}			
Total Cumulative ELCR		5.9×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-354 is 5.9×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 5.9×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is tritium (ELCR = 5.7×10^{-4}, 97 percent contribution).

The HI for well 199-N-354 is 0.70, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-355. Table 7-68 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-355.

Table 7-68. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-355 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.0×10^{-3}, 74%) Tritium, (ELCR = 7.0×10^{-4}, 26%)	0.82	--
	Dermal Contact	--		0.01	

Table 7-68. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-355 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.83
Radionuclides	Ingestion	2.1×10^{-3}		--	
	Immersion	4.0×10^{-11}			
	Inhalation of Volatiles	6.9×10^{-4}			
	Total Risk	2.7×10^{-3}			
Total Cumulative ELCR		2.7×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-355 is 2.7×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.7×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 2.0×10^{-3}, 74 percent contribution) and tritium (ELCR = 7.0×10^{-4}, 26 percent contribution).

The HI for well 199-N-355 is 0.83, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-356. Table 7-69 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-356.

Table 7-69. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-356 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 1.0×10^{-3}, 60%) Tritium, (ELCR = 6.8×10^{-4}, 40%)	0.67	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.68

Table 7-69. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-356 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Ingestion	1.0×10^{-3}		--	
	Immersion	2.0×10^{-11}			
	Inhalation of Volatiles	6.7×10^{-4}			
	Total Risk	1.7×10^{-3}			
Total Cumulative ELCR		1.7×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-356 is 1.7×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.7×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.0×10^{-3}, 60 percent contribution) and tritium (ELCR = 6.8×10^{-4}, 40 percent contribution).

The HI for well 199-N-356 is 0.68, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-357. Table 7-70 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-357.

Table 7-70. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-357 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.1×10^{-5}	Arsenic, (ELCR = 1.1×10^{-5}, 0.31%) Strontium-90, (ELCR = 3.5×10^{-3}, >99%)	0.72	--
	Dermal Contact	5.8×10^{-8}		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	1.1×10^{-5}		Total HI	0.73
Radionuclides	Ingestion	3.5×10^{-3}		--	
	Immersion	6.8×10^{-11}			

Table 7-70. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-357 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--			
	Total Risk	3.5×10^{-3}			
Total Cumulative ELCR		3.5×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-357 is 3.5×10^{-3}. The total ELCR for nonradiological analytes is 1.1×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 3.5×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 3.5×10^{-3}, >99 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.1×10^{-5}, 0.31 percent contribution) where the EPC (0.56 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-357 when contribution from arsenic is not included.

The HI for well 199-N-357 is 0.73, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-358. Table 7-71 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-358.

Table 7-71. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-358 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 1.7×10^{-3}, 80%) Tritium, (ELCR = 4.2×10^{-4}, 20%)	0.59	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.60
Radionuclides	Ingestion	1.7×10^{-3}		--	
	Immersion	3.3×10^{-11}			

Table 7-71. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-358 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	4.1×10^{-4}			
	Total Risk	2.1×10^{-3}			
Total Cumulative ELCR		2.1×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-358 is 2.1×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.1×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.7×10^{-3}, 80 percent contribution) and tritium (ELCR = 4.2×10^{-4}, 20 percent contribution).

The HI for well 199-N-358 is 0.60, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-359. Table 7-72 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-359.

Table 7-72. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-359 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	6.7×10^{-6}	Strontium-90, (ELCR = 4.6×10^{-4}, 99%)	0.84	--
	Dermal Contact	3.6×10^{-8}		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	6.8×10^{-6}		Total HI	0.85
Radionuclides	Ingestion	4.6×10^{-4}		--	
	Immersion	9.1×10^{-12}			
	Inhalation of Volatiles	--			
	Total Risk	4.6×10^{-4}			

Table 7-72. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-359 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		4.7×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-359 is 4.7×10^{-4}. The total ELCR for nonradiological analytes is 6.8×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.6×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 4.6×10^{-4}, 99 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 6.8×10^{-6}, 1.4 percent contribution) where the EPC (0.35 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-359 when contribution from arsenic is not included.

The HI for well 199-N-359 is 0.85, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-360. Table 7-73 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-360.

Table 7-73. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-360 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.3×10^{-5}	Arsenic, (ELCR = 3.3×10^{-5}, 1.7%) Strontium-90, (ELCR = 1.5×10^{-3}, 74%) Tritium, (ELCR = 4.9×10^{-4}, 25%)	0.74	--
	Dermal Contact	1.8×10^{-7}		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	3.3×10^{-5}		Total HI	0.75
Radionuclides	Ingestion	1.5×10^{-3}		--	
	Immersion	2.9×10^{-11}			
	Inhalation of Volatiles	4.8×10^{-4}			
	Total Risk	1.9×10^{-3}			

Table 7-73. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-360 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		2.0×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-360 is 2.0×10^{-3}. The total ELCR for nonradiological analytes is 3.3×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.9×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 1.5×10^{-3}, 74 percent contribution) and tritium (ELCR = 4.9×10^{-4}, 25 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.3×10^{-5}, 1.7 percent contribution) where the EPC (1.7 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-360 when contribution from arsenic is not included.

The HI for well 199-N-360 is 0.75, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-361. Table 7-74 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-361.

Table 7-74. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-361 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.3×10^{-5}	Arsenic, (ELCR = 1.4×10^{-5}, 3.0%) Strontium-90, (ELCR = 4.3×10^{-4}, 97%)	0.81	--
	Dermal Contact	7.2×10^{-8}		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	1.4×10^{-5}		Total HI	0.83
Radionuclides	Ingestion	4.3×10^{-4}		--	
	Immersion	8.5×10^{-12}			
	Inhalation of Volatiles	--			
	Total Risk	4.3×10^{-4}			

Table 7-74. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-361 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		4.5×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-361 is 4.5×10^{-4}. The total ELCR for nonradiological analytes is 1.4×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 4.3×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 4.3×10^{-4}, 97 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.4×10^{-5}, 3.0 percent contribution) where the EPC (0.70 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-361 when contribution from arsenic is not included.

The HI for well 199-N-361 is 0.83, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-362. Table 7-75 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-362.

Table 7-75. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-362 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	3.8×10^{-5}	Arsenic, (ELCR = 3.8×10^{-5}, 2.6%) Strontium-90, (ELCR = 8.0×10^{-4}, 55%) Tritium, (ELCR = 6.1×10^{-4}, 42%)	0.87	--
	Dermal Contact	2.0×10^{-7}		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	3.8×10^{-5}		Total HI	0.88
Radionuclides	Ingestion	8.0×10^{-4}		--	
	Immersion	1.6×10^{-11}			
	Inhalation of Volatiles	6.0×10^{-4}			
	Total Risk	1.4×10^{-3}			

Table 7-75. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-362 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		1.4×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-362 is 1.4×10^{-3}. The total ELCR for nonradiological analytes is 3.8×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 1.4×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 8.0×10^{-4}, 55 percent contribution) and tritium (ELCR = 6.1×10^{-4}, 42 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 3.8×10^{-5}, 2.6 percent contribution) where the EPC (2.0 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-362 when contribution from arsenic is not included.

The HI for well 199-N-362 is 0.88, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-363. Table 7-76 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-363.

Table 7-76. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-363 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	7.3×10^{-6}	Strontium-90, (ELCR = 9.4×10^{-4}, 99%)	0.67	--
	Dermal Contact	3.9×10^{-8}		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	7.4×10^{-6}		Total HI	0.68
Radionuclides	Ingestion	9.4×10^{-4}		--	
	Immersion	1.8×10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	9.4×10^{-4}			

Table 7-76. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-363 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		9.5×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-363 is 9.5×10^{-4}. The total ELCR for nonradiological analytes is 7.4×10^{-6}, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 9.4×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 9.4×10^{-4}, 99 percent contribution).

The HI for well 199-N-363 is 0.68, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-364. Table 7-77 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-364.

Table 7-77. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-364 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 8.1×10^{-4}, 56%) Tritium, (ELCR = 6.2×10^{-4}, 44%)	0.64	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.65
Radionuclides	Ingestion	8.2×10^{-4}		--	
	Immersion	1.6×10^{-11}			
	Inhalation of Volatiles	6.1×10^{-4}			
	Total Risk	1.4×10^{-3}			
Total Cumulative ELCR		1.4×10^{-3}			

Table 7-77. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-364 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-364 is 1.4×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.4×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 8.1×10^{-4}, 56 percent contribution) and tritium (ELCR = 6.2×10^{-4}, 44 percent contribution).

The HI for well 199-N-364 is 0.65, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-365. Table 7-78 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-365.

Table 7-78. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-365 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	2.1×10^{-5}	Arsenic, (ELCR = 2.1×10^{-5}, 5.2%) Strontium-90, (ELCR = 3.9×10^{-4}, 95%)	0.77	--
	Dermal Contact	1.1×10^{-7}		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	2.1×10^{-5}		Total HI	0.78
Radionuclides	Ingestion	3.9×10^{-4}		--	
	Immersion	7.5×10^{-12}			
	Inhalation of Volatiles	--			
	Total Risk	3.9×10^{-4}			
Total Cumulative ELCR		4.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-365 is 4.1×10^{-4}. The total ELCR for nonradiological analytes is 2.1×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5))

cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 3.9×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 3.9×10^{-4}, 95 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 2.1×10^{-5}, 5.2 percent contribution) where the EPC (1.1 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-365 when contribution from arsenic is not included.

The HI for well 199-N-365 is 0.78, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-366. Table 7-79 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-366.

Table 7-79. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-366 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 4.0×10^{-4}, 43%) Tritium, (ELCR = 5.2×10^{-4}, 57%)	0.54	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.55
Radionuclides	Ingestion	4.0×10^{-4}		--	
	Immersion	7.8×10^{-12}			
	Inhalation of Volatiles	5.1×10^{-4}			
	Total Risk	9.1×10^{-4}			
Total Cumulative ELCR		9.1×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-366 is 9.1×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 9.1×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are strontium-90 (ELCR = 4.0×10^{-4}, 43 percent contribution) and tritium (ELCR = 5.2×10^{-4}, 57 percent contribution).

The HI for well 199-N-366 is 0.55, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-367. Table 7-80 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-367.

Table 7-80. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-367 – PRB Monitoring Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.2×10^{-5}	Arsenic, (ELCR = 1.2×10^{-5}, 2.2%) Tritium, (ELCR = 4.9×10^{-4}, 90%)	0.56	--
	Dermal Contact	6.4×10^{-8}		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	1.2×10^{-5}		Total HI	0.57
Radionuclides	Ingestion	4.8×10^{-5}		--	
	Immersion	8.0×10^{-13}			
	Inhalation of Volatiles	4.9×10^{-4}			
	Total Risk	5.3×10^{-4}			
Total Cumulative ELCR		5.5×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-367 is 5.5×10^{-4}. The total ELCR for nonradiological analytes is 1.2×10^{-5}, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) cumulative risk threshold of 1×10^{-5}. The total ELCR for radiological analytes is 5.3×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributors to the total cumulative ELCR are tritium (ELCR = 4.9×10^{-4}, 90 percent contribution). Contribution to ELCR is elevated for arsenic (ELCR = 1.2×10^{-5}, 2.2 percent contribution) where the EPC (0.62 µg/L) is less than the 90th percentile Hanford site background value of 7.85 µg/L. A total ELCR for nonradiological analytes is not reported for well 199-N-367 when contribution from arsenic is not included.

The HI for well 199-N-367 is 0.57, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.7 Injection Wells Screened Above Water Table

Eight injection wells are screened above water table. A summary of the cancer risks and noncancer hazards by exposure route for each individual well follows.

Well 199-N-200. Table 7-81 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-200.

Table 7-81. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-200 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.48	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.50
Radionuclides	Ingestion	3.3×10^{-5}		--	
	Immersion	6.4×10^{-13}			
	Inhalation of Volatiles	--			
	Total Risk	3.3×10^{-5}			
Total Cumulative ELCR		3.3×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-200 is 3.3×10^{-5}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 3.3×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-N-200 is 0.50, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-210. Table 7-82 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-210.

Table 7-82. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-210 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.60	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.61
Radionuclides	Ingestion	1.8×10^{-5}		--	
	Immersion	3.6×10^{-13}			
	Inhalation of Volatiles	--			
	Total Risk	1.8×10^{-5}			
Total Cumulative ELCR		1.8×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-210 is 1.8×10^{-5}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.8×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-N-210 is 0.61, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-269. Table 7-83 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-269.

Table 7-83. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-269 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 3.5×10^{-3}, 100%)	0.73	--
	Dermal Contact	--		< 0.01	

Table 7-83. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-269 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.74
Radionuclides	Ingestion	3.5×10^{-3}		--	
	Immersion	6.8×10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	3.5×10^{-3}			
Total Cumulative ELCR		3.5×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-269 is 3.5×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 3.5×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 3.5×10^{-3}, 100 percent contribution).

The HI for well 199-N-269 is 0.74, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-281. Table 7-84 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-281.

Table 7-84. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-281 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 3.1×10^{-3}, 100%)	0.42	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.43

Table 7-84. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-281 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Ingestion	3.1×10^{-3}		--	
	Immersion	6.0×10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	3.1×10^{-3}			
Total Cumulative ELCR		3.1×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-281 is 3.1×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 3.1×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 3.1×10^{-3}, 100 percent contribution).

The HI for well 199-N-281 is 0.43, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-297. Table 7-85 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-297.

Table 7-85. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-297 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 1.7×10^{-3}, 100%)	0.51	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.52
Radionuclides	Ingestion	1.7×10^{-3}		--	
	Immersion	3.4×10^{-11}			

Table 7-85. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-297 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--			
	Total Risk	1.7×10^{-3}			
Total Cumulative ELCR		1.7×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-297 is 1.7×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.7×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 1.7×10^{-3}, 100 percent contribution).

The HI for well 199-N-297 is 0.52, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-315. Table 7-86 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-315.

Table 7-86. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-315 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 1.3×10^{-3}, 100%)	0.56	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.56
Radionuclides	Ingestion	1.3×10^{-3}		--	
	Immersion	2.6×10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	1.3×10^{-3}			

Table 7-86. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-315 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		1.3×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-315 is 1.3×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.3×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 1.3×10^{-3}, 100 percent contribution).

The HI for well 199-N-315 is 0.56, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-333. Table 7-87 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-333.

Table 7-87. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-333 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 1.9×10^{-4}, 100%)	0.36	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.37
Radionuclides	Ingestion	1.9×10^{-4}		--	
	Immersion	3.7×10^{-12}			
	Inhalation of Volatiles	--			
	Total Risk	1.9×10^{-4}			
Total Cumulative ELCR		1.9×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-333 is 1.9×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.9×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 1.9×10^{-4}, 100 percent contribution).

The HI for well 199-N-333 is 0.37, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-343. Table 7-88 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-343.

Table 7-88. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-343 – Injection Well Screened Above Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.28	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.28
Radionuclides	Ingestion	1.3×10^{-6}		--	
	Immersion	2.6×10^{-14}			
	Inhalation of Volatiles	--			
	Total Risk	1.3×10^{-6}			
Total Cumulative ELCR		1.3×10^{-6}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-343 is 1.3×10^{-6}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.3×10^{-6}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-N-343 is 0.28, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.8 Injection Wells Screened Below Water Table

Seven injection wells are screened below water table. A summary of the cancer risks and noncancer hazards by exposure route for each individual well follows.

Well 199-N-201. Table 7-89 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-201.

Table 7-89. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-201 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	4.4	Fluoride, (HQ = 0.10, 2.0%) Iron, (HQ = 0.12, 2.4%) Manganese, (HQ = 4.1, 84%) Nitrate, (HQ = 0.27, 5.6%)
	Dermal Contact	--		0.42	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	4.9
Radionuclides	Ingestion	2.8×10^{-5}		--	
	Immersion	5.5×10^{-13}			
	Inhalation of Volatiles	--			
	Total Risk	2.8×10^{-5}			
Total Cumulative ELCR		2.8×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-201 is 2.8×10^{-5}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.8×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-N-201 is 4.9, which is greater than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1. Primary contributors to the noncancer HI are fluoride (HQ = 0.10, 2.0 percent contribution), iron (HQ = 0.12, 2.4 percent contribution), manganese (HQ = 4.1, 84 percent contribution), and nitrate (HQ = 0.27, 5.6 percent contribution).

The mechanisms of action (critical effect) for each of the analytes that contribute to the HI are as follows:

- Fluoride: objectionable dental fluorosis, a cosmetic effect
- Iron: GI tract; adverse gastrointestinal effects
- Manganese: nervous system effects

- Nitrate: early clinical signs of methemoglobinemia

Exposure to each of the analytes that contribute to the HI of 4.9 results in a different critical effect. As such, it is appropriate to segregate the contribution to the HI for each analyte. Manganese has an individual HQ of 4.1, which is greater than the target HI of 1. Evaluating each of the remaining analytes individually results in an HI less than 1 for each contributor.

Well 199-N-268. Table 7-90 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-268.

Table 7-90. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-268 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.4 x 10^{-3}, 100%)	0.77	--
	Dermal Contact	--		< 0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.77
Radionuclides	Ingestion	2.4 x 10^{-3}		--	
	Immersion	4.8 x 10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	2.4 x 10^{-3}			
Total Cumulative ELCR		2.4 x 10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-268 is 2.4×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.4×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 2.4 x 10^{-3}, 100 percent contribution).

The HI for well 199-N-268 is 0.77, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-280. Table 7-91 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-280.

Table 7-91. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-280 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.6 x 10^{-3}, 100%)	0.45	--
	Dermal Contact	--		0.01	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.46
Radionuclides	Ingestion	2.6 x 10^{-3}		--	
	Immersion	5.1 x 10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	2.6 x 10^{-3}			
Total Cumulative ELCR		2.6 x 10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-280 is 2.6 × 10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.6 × 10^{-3}, which is greater than the EPA upper risk threshold of 1 × 10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 2.6 x 10^{-3}, 100 percent contribution).

The HI for well 199-N-280 is 0.46, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-298. Table 7-92 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-298.

Table 7-92. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-298 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.2 x 10^{-3}, 100%)	0.52	--
	Dermal Contact	--		< 0.01	

Table 7-92. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-298 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.52
Radionuclides	Ingestion	2.2×10^{-3}		--	
	Immersion	4.2×10^{-11}			
	Inhalation of Volatiles	--			
	Total Risk	2.2×10^{-3}			
Total Cumulative ELCR		2.2×10^{-3}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-298 is 2.2×10^{-3}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.2×10^{-3}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 2.2×10^{-3}, 100 percent contribution).

The HI for well 199-N-298 is 0.52, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-316. Table 7-93 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-316.

Table 7-93. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-316 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 2.0×10^{-4}, 100%)	0.63	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.65

Table 7-93. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-316 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Radionuclides	Ingestion	2.0×10^{-4}		--	
	Immersion	3.9×10^{-12}			
	Inhalation of Volatiles	--			
	Total Risk	2.0×10^{-4}			
Total Cumulative ELCR		2.0×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-316 is 2.0×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 2.0×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 2.0×10^{-4}, 100 percent contribution).

The HI for well 199-N-316 is 0.65, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-332. Table 7-94 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-332.

Table 7-94. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-332 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	Strontium-90, (ELCR = 7.9×10^{-4}, 100%)	0.67	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.69
Radionuclides	Ingestion	7.9×10^{-4}		--	
	Immersion	1.5×10^{-11}			

Table 7-94. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-332 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	--			
	Total Risk	7.9×10^{-4}			
Total Cumulative ELCR		7.9×10^{-4}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-332 is 7.9×10^{-4}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 7.9×10^{-4}, which is greater than the EPA upper risk threshold of 1×10^{-4}.

The major contributor to the total cumulative ELCR is strontium-90 (ELCR = 7.9×10^{-4}, 100 percent contribution).

The HI for well 199-N-332 is 0.69, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

Well 199-N-342. Table 7-95 provides a summary of the cancer risks and noncancer hazards by exposure route for well 199-N-342.

Table 7-95. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-342 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	--	--	0.49	--
	Dermal Contact	--		0.02	
	Inhalation of Volatiles	--		--	
	Total Risk	--		Total HI	0.51
Radionuclides	Ingestion	1.1×10^{-5}		--	
	Immersion	2.2×10^{-13}			
	Inhalation of Volatiles	--			
	Total Risk	1.1×10^{-5}			

Table 7-95. Summary of Cancer Risks and Noncancer Hazards for Well 199-N-342 – Injection Well Screened Below Water Table

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Total Cumulative ELCR		1.1×10^{-5}			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

The total cumulative ELCR for well 199-N-342 is 1.1×10^{-5}. There were no carcinogenic nonradiological analytes measured; therefore, nonradiological cancer risks are not reported for this well. The total ELCR for radiological analytes is 1.1×10^{-5}, which is within the EPA risk threshold range of 1×10^{-4} to 1×10^{-6}.

There are no major risk contributors.

The HI for well 199-N-342 is 0.51, which is less than the MTCA HHRA Procedures (WAC 173-340-708(5)) target HI of 1.

7.9 All Wells Grouped

A summary of the cancer risks and noncancer hazards by exposure route for the all wells dataset follows. The following information is provided for comparison to the Native American exposure scenarios only. It is not used for decision making purposes.

All Wells. Table 7-96 provides a summary of the cancer risks and noncancer hazards by exposure route for the all wells dataset.

Table 7-96. Summary of Cancer Risks and Noncancer Hazards for All Wells Dataset

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
Nonradionuclides	Ingestion	1.1×10^{-4}	Aldrin (ELCR = 1.3×10^{-4}, 3.5%) Arsenic (ELCR = 8.0×10^{-5}, 2.2 %) Benzo(a)anthracene (ELCR = 2.5×10^{-6} ,0.07%) Benzo(a)pyrene (ELCR = 7.3×10^{-5}, 2.0 %)	6.2	Aldrin (HI = 0.73, 4.7%) Arsenic (HI = 0.69, 4.4%) Benzo(a)pyrene (HI = 0.88, 5.6%) Bis(2-ethylhexyl)
	Dermal Contact	2.4×10^{-4}		2.4	

Table 7-96. Summary of Cancer Risks and Noncancer Hazards for All Wells Dataset

Analyte Group	Exposure Route	ELCR	% Risk Contribution	HI	% HI Contribution
	Inhalation of Volatiles	4.2×10^{-5}	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) (ELCR = 1.8×10^{-5}, 0.50%) Bis(2-ethylhexyl) phthalate (ELCR = 3.6×10^{-5}, 1.0%) Butylbenzylphthalate (ELCR = 2.7×10^{-6},0.074%) Carbon tetrachloride (ELCR = 1.2×10^{-6}, 0.032%) Chloroform (ELCR = 9.9×10^{-6}, 0.27%) Dibenz(a,h)anthracene (ELCR = 7.9×10^{-6}, 0.22%) Indeno(1,2,3-cd)pyrene (ELCR = 1.4×10^{-6},0.039 %) Toxaphene (ELCR = 2.0×10^{-5}, 0.6%) Trichloroethene (ELCR = 1.7×10^{-5}, 0.46%) Carbon-14 (ELCR = 1.9×10^{-4}, 5.4%) Strontium-90 (ELCR = 2.4×10^{-3}, 65 %) Tritium (ELCR = 6.6×10^{-4}, 18%)	7.1	phthalate (HI = 0.46, 2.9%) Bromomethane (0.23, 1.4%) Cyanide (3.6, 23%) Ethylene glycol (0.15, 0.96% Fluoride (0.16, 1.0%) Hexavalent Chromium (0.36, 2.3%) Lithium (0.21, 1.3%) Manganese (0.86, 5.5%) Methanol (1.9, 12%) Nitrate (0.35, 2.2%) Thallium (0.34, 2.1%) Trichloroethene (4.2, 27%)
	Total Risk	**4.0×10^{-4}**		Total HI	**16**
Radionuclides	Ingestion	2.4×10^{-3}		--	
	Immersion	5.1×10^{-11}			
	Inhalation of Volatiles	8.4×10^{-4}			
	Total Risk	**3.2×10^{-3}**			
Total Cumulative ELCR		**3.6×10^{-3}**			

ELCR = excess lifetime cancer risk
HI = hazard index
HQ = hazard quotient

8 References

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Appendix A

100-NR-2 Groundwater OU Exposure Point Concentrations

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-149	non-Rad	Barium	7440-39-3	9	9	0	100	ug/L	--	--	25	31	0.076	29	95% Student's-t UCL	--
199-K-149	non-Rad	Chromium	7440-47-3	9	9	0	100	ug/L	--	--	3.8	10	0.32	8.4	95% Student's-t UCL	--
199-K-149	non-Rad	Fluoride	16984-48-8	9	9	0	100	ug/L	--	--	250	413	0.15	331	95% Student's-t UCL	--
199-K-149	non-Rad	Hexavalent Chromiur	18540-29-9	9	2	7	22	ug/L	1.5	8.0	4.3	5.3	0.15	3.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-149	non-Rad	Iron	7439-89-6	9	7	2	78	ug/L	19	30	15	82	0.73	55	95% KM Adjusted Gamma UCL	--
199-K-149	non-Rad	Manganese	7439-96-5	9	2	7	22	ug/L	1.0	4.0	1.2	1.5	0.16	1.4	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-149	non-Rad	Nickel	7440-02-0	9	7	2	78	ug/L	4.0	4.0	2.3	14	0.69	9.3	95% KM Adjusted Gamma UCL	--
199-K-149	non-Rad	Nitrate	14797-55-8	9	9	0	100	ug/L	--	--	11,400	16,200	0.13	15,011	95% Student's-t UCL	--
199-K-149	non-Rad	Nitrite	14797-65-0	9	2	7	22	ug/L	20	125	200	338	0.36	231	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-149	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	189	250	0.100	232	95% Student's-t UCL	--
199-K-149	non-Rad	Vanadium	7440-62-2	9	9	0	100	ug/L	--	--	14	21	0.13	19	95% Student's-t UCL	--
199-K-149	non-Rad	Zinc	7440-66-6	9	0	9	0	ug/L	3.0	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-149	Rad	Carbon-14	14762-75-5	9	7	2	78	pCi/L	18	51	17	806	2.0	501	95% KM (Chebyshev) UCL	--
199-K-149	Rad	Cesium-137	10045-97-3	9	0	9	0	pCi/L	1.9	14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-K-149	Rad	Strontium-90	10098-97-2	9	0	9	0	pCi/L	0.52	1.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-149	Rad	Technetium-99	14133-76-7	9	0	9	0	pCi/L	6.4	12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-149	Rad	Tritium	10028-17-8	9	8	1	89	pCi/L	97	97	1,390	2,400	0.22	1,986	95% KM (t) UCL	--
199-K-150	non-Rad	Aluminum	7429-90-5	41	34	7	83	ug/L	10	20	14	292	0.91	104	95% GROS Adjusted Gamma UCL	--
199-K-150	non-Rad	Antimony	7440-36-0	40	0	40	0	ug/L	0.30	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-150	non-Rad	Arsenic	7440-38-2	40	39	1	98	ug/L	1.7	1.7	2.6	6.2	0.20	4.5	95% KM (t) UCL	--
199-K-150	non-Rad	Barium	7440-39-3	41	41	0	100	ug/L	--	--	22	132	0.46	39	95% Modified-t UCL	--
199-K-150	non-Rad	Beryllium	7440-41-7	40	0	40	0	ug/L	0.10	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-150	non-Rad	Boron	7440-42-8	27	21	6	78	ug/L	15	15	8.6	93	1.1	31	95% KM (Chebyshev) UCL	--
199-K-150	non-Rad	Cadmium	7440-43-9	40	1	39	2.5	ug/L	0.050	0.11	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-150	non-Rad	Chromium	7440-47-3	41	30	11	73	ug/L	2.0	3.3	1.2	13	0.64	4.0	95% GROS Adjusted Gamma UCL	--
199-K-150	non-Rad	Cobalt	7440-48-4	40	24	16	60	ug/L	0.050	0.22	0.10	0.79	0.72	0.30	95% KM (Chebyshev) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-150	non-Rad	Copper	7440-50-8	40	34	6	85	ug/L	0.20	0.35	0.35	3.5	0.67	1.2	95% KM H-UCL	--
199-K-150	non-Rad	Fluoride	16984-48-8	41	41	0	100	ug/L	--	--	114	410	0.19	245	95% Adjusted Gamma UCL	--
199-K-150	non-Rad	Hexavalent Chromiur	18540-29-9	41	10	31	24	ug/L	1.5	8.0	1.5	4.7	0.32	2.1	95% KM (t) UCL	--
199-K-150	non-Rad	Iron	7439-89-6	14	10	4	71	ug/L	30	30	33	254	0.68	149	95% KM (t) UCL	--
199-K-150	non-Rad	Manganese	7439-96-5	26	25	1	96	ug/L	1.0	1.0	0.64	21	0.84	11	95% GROS Adjusted Gamma UCL	--
199-K-150	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-150	non-Rad	Molybdenum	7439-98-7	41	41	0	100	ug/L	--	--	2.8	7.8	0.30	4.4	95% Modified-t UCL	--
199-K-150	non-Rad	Nickel	7440-02-0	26	21	5	81	ug/L	0.50	0.50	0.34	3.4	0.51	1.5	95% GROS Adjusted Gamma UCL	--
199-K-150	non-Rad	Nitrate	14797-55-8	41	41	0	100	ug/L	--	--	10,600	20,800	0.16	13,469	95% Modified-t UCL	--
199-K-150	non-Rad	Nitrite	14797-65-0	41	4	37	9.8	ug/L	9.9	131	129	213	0.23	44	95% KM (t) UCL	--
199-K-150	non-Rad	Selenium	7782-49-2	40	6	34	15	ug/L	1.0	2.0	0.71	2.9	0.37	1.1	95% KM (t) UCL	--
199-K-150	non-Rad	Silver	7440-22-4	40	3	37	7.5	ug/L	0.050	0.82	0.32	1.2	0.80	0.16	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-150	non-Rad	Strontium	7440-24-6	26	26	0	100	ug/L	--	--	223	331	0.090	279	95% Student's-t UCL	--
199-K-150	non-Rad	Thallium	7440-28-0	40	1	39	2.5	ug/L	0.050	0.55	0.67	0.67	0	0.67	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-150	non-Rad	Tin	7440-31-5	41	11	30	27	ug/L	0.050	5.0	0.12	2.2	1.1	0.42	djusted KM-UCL (use when k<=1 and 15 < n	--
199-K-150	non-Rad	Uranium	7440-61-1	26	26	0	100	ug/L	--	--	2.1	3.3	0.12	2.8	95% Student's-t UCL	--
199-K-150	non-Rad	Vanadium	7440-62-2	19	19	0	100	ug/L	--	--	15	17	0.029	16	95% Student's-t UCL	--
199-K-150	non-Rad	Zinc	7440-66-6	26	9	17	35	ug/L	3.5	8.3	3.5	21	0.67	6.7	95% KM Adjusted Gamma UCL	--
199-K-150	Rad	Carbon-14	14762-75-5	5	4	1	80	pCi/L	49	49	22	61	0.36	59	95% KM (t) UCL	--
199-K-150	Rad	Cesium-137	10045-97-3	5	0	5	0	pCi/L	4.7	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-K-150	Rad	Strontium-90	10098-97-2	5	0	5	0	pCi/L	0.56	1.2	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-K-150	Rad	Technetium-99	14133-76-7	5	0	5	0	pCi/L	2.8	12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-150	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	1,360	1,960	0.14	1,940	95% Student's-t UCL	--
199-K-151	non-Rad	2-Butanone	78-93-3	11	0	11	0	ug/L	0.52	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-K-151	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Acetone	67-64-1	11	0	11	0	ug/L	0.34	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-K-151	non-Rad	Aluminum	7429-90-5	10	5	5	50	ug/L	10	20	18	47	0.33	29	95% KM (t) UCL	--
199-K-151	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.020	0.020	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Antimony	7440-36-0	10	1	9	10	ug/L	0.30	1.7	0.15	0.15	0	0.15	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-K-151	non-Rad	Arsenic	7440-38-2	10	10	0	100	ug/L	--	--	4.3	5.5	0.086	5.2	95% Student's-t UCL	--
199-K-151	non-Rad	Barium	7440-39-3	11	11	0	100	ug/L	--	--	26	38	0.11	33	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-151	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Beryllium	7440-41-7	10	1	9	10	ug/L	0.10	0.35	0.45	0.45	0	0.45	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-K-151	non-Rad	Boron	7440-42-8	7	5	2	71	ug/L	7.2	10	8.5	12	0.15	11	95% KM (t) UCL	--
199-K-151	non-Rad	Cadmium	7440-43-9	10	0	10	0	ug/L	0.050	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-K-151	non-Rad	Carbon tetrachloride	56-23-5	11	0	11	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-K-151	non-Rad	Chloroform	67-66-3	11	11	0	100	ug/L	--	--	1.3	8.3	0.61	5.0	95% Adjusted Gamma UCL	--
199-K-151	non-Rad	Chromium	7440-47-3	11	11	0	100	ug/L	--	--	2.6	13	0.47	7.9	95% Student's-t UCL	--
199-K-151	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Cobalt	7440-48-4	10	1	9	10	ug/L	0.070	0.22	0.20	0.20	0	0.20	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-K-151	non-Rad	Copper	7440-50-8	10	7	3	70	ug/L	0.45	1.1	0.27	1.8	0.64	0.95	95% KM (t) UCL	--
199-K-151	non-Rad	Dibenz[a,h]anthracene	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Ethylbenzene	100-41-4	11	0	11	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-K-151	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Fluoride	16984-48-8	11	11	0	100	ug/L	--	--	170	380	0.20	336	95% Student's-t UCL	--
199-K-151	non-Rad	Hexavalent Chromium	18540-29-9	10	7	3	70	ug/L	2.0	8.0	2.4	6.4	0.34	4.5	95% KM (t) UCL	--
199-K-151	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Iron	7439-89-6	5	2	3	40	ug/L	13	16	29	36	0.14	36	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-K-151	non-Rad	Manganese	7439-96-5	7	4	3	57	ug/L	0.30	4.0	0.89	30	1.2	16	95% KM (t) UCL	--
199-K-151	non-Rad	Methylene chloride	75-09-2	11	0	11	0	ug/L	0.27	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-K-151	non-Rad	Molybdenum	7439-98-7	10	10	0	100	ug/L	--	--	6.1	8.3	0.076	7.8	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-151	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Nickel	7440-02-0	7	3	4	43	ug/L	0.40	4.2	0.36	1.5	0.59	1.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-K-151	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	6,600	20,800	0.27	14,810	95% Student's-t UCL	--
199-K-151	non-Rad	Nitrite	14797-65-0	11	2	9	18	ug/L	9.9	131	174	252	0.26	121	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-151	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-K-151	non-Rad	Selenium	7782-49-2	10	4	6	40	ug/L	1.0	2.0	1.2	2.8	0.35	1.9	95% KM (t) UCL	--
199-K-151	non-Rad	Silver	7440-22-4	10	0	10	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-K-151	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	220	311	0.12	285	95% Student's-t UCL	--
199-K-151	non-Rad	Tetrachloroethene	127-18-4	11	0	11	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-K-151	non-Rad	Thallium	7440-28-0	10	0	10	0	ug/L	0.014	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-K-151	non-Rad	Tin	7440-31-5	10	6	4	60	ug/L	0.050	1.1	0.17	5.8	1.3	2.2	95% KM (t) UCL	--
199-K-151	non-Rad	Toluene	108-88-3	11	0	11	0	ug/L	0.070	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-K-151	non-Rad	Trichloroethene	79-01-6	11	0	11	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-K-151	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	2.7	3.4	0.097	3.2	95% Student's-t UCL	--
199-K-151	non-Rad	Vanadium	7440-62-2	6	6	0	100	ug/L	--	--	16	18	0.051	18	95% Student's-t UCL	--
199-K-151	non-Rad	Zinc	7440-66-6	7	1	6	14	ug/L	4.0	9.3	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-K-151	Rad	Carbon-14	14762-75-5	10	9	1	90	pCi/L	48	48	13	27	0.18	25	95% KM (t) UCL	--
199-K-151	Rad	Strontium-90	10098-97-2	10	2	8	20	pCi/L	0.60	1.4	1.4	4.6	0.74	3.4	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-K-151	Rad	Technetium-99	14133-76-7	10	0	10	0	pCi/L	5.8	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-151	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	1,100	3,200	0.31	2,397	95% Student's-t UCL	--
199-K-37	non-Rad	Barium	7440-39-3	10	10	0	100	ug/L	--	--	13	30	0.19	27	95% Student's-t UCL	--
199-K-37	non-Rad	Chromium	7440-47-3	10	10	0	100	ug/L	--	--	15	33	0.23	26	95% Student's-t UCL	--
199-K-37	non-Rad	Fluoride	16984-48-8	10	10	0	100	ug/L	--	--	91	214	0.29	182	95% Student's-t UCL	--
199-K-37	non-Rad	Hexavalent Chromiur	18540-29-9	10	10	0	100	ug/L	--	--	16	30	0.23	25	95% Adjusted Gamma UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-K-37	non-Rad	Iron	7439-89-6	10	2	8	20	ug/L	19	30	21	25	0.11	24	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-37	non-Rad	Manganese	7439-96-5	10	0	10	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-K-37	non-Rad	Nickel	7440-02-0	10	1	9	10	ug/L	1.5	67	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-K-37	non-Rad	Nitrate	14797-55-8	10	10	0	100	ug/L	--	--	5,000	10,600	0.23	7,801	95% Student's-t UCL	--
199-K-37	non-Rad	Nitrite	14797-65-0	10	1	9	10	ug/L	125	131	149	149	0	149	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-K-37	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	96	245	0.21	200	95% Student's-t UCL	--
199-K-37	non-Rad	Vanadium	7440-62-2	10	8	2	80	ug/L	5.0	10	9.4	14	0.12	12	95% KM (t) UCL	--
199-K-37	non-Rad	Zinc	7440-66-6	10	2	8	20	ug/L	3.3	7.0	4.2	5.4	0.17	4.4	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-K-37	Rad	Carbon-14	14762-75-5	5	1	4	20	pCi/L	4.5	55	4.5	4.5	0	4.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon-14 was not processed!
199-K-37	Rad	Cesium-137	10045-97-3	5	0	5	0	pCi/L	5.1	14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-K-37	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	2.3	4.9	0.25	4.9	95% Student's-t UCL	--
199-K-37	Rad	Technetium-99	14133-76-7	5	0	5	0	pCi/L	6.4	12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-K-37	Rad	Tritium	10028-17-8	10	3	7	30	pCi/L	97	346	115	303	0.52	208	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-103A	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	155	155	0	155	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	41	67	0.22	65	95% Student's-t UCL	--
199-N-103A	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	7.3	7.3	0	7.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-103A	non-Rad	Chromium	7440-47-3	4	2	2	50	ug/L	5.0	5.0	3.5	5.2	0.28	5.1	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-103A	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.68	0.68	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Fluoride	16984-48-8	5	0	5	0	ug/L	46	66	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoride was not processed!
199-N-103A	non-Rad	Iron	7439-89-6	4	1	3	25	ug/L	13	20	30	30	0	30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-103A	non-Rad	Manganese	7439-96-5	4	2	2	50	ug/L	4.0	4.0	2.9	11	0.80	11	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-103A	non-Rad	Molybdenum	7439-98-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Nickel	7440-02-0	4	0	4	0	ug/L	0.80	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-103A	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	26,300	159,000	0.66	144,270	95% Student's-t UCL	--
199-N-103A	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	250	160	160	0	160	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-103A	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	153	361	0.36	342	95% Student's-t UCL	--
199-N-103A	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Uranium	7440-61-1	1	0	1	0	ug/L	0.23	0.23	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-103A	non-Rad	Vanadium	7440-62-2	4	2	2	50	ug/L	4.4	10	5.0	11	0.55	11	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-103A	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-103A	Rad	Cesium-137	10045-97-3	3	0	3	0	pCi/L	5.3	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-103A	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	1,090	1,600	0.15	1,592	95% Student's-t UCL	--
199-N-103A	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	1,800	9,000	0.43	9,000	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-104A	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	12	15	0.17	15	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	16	21	0.19	21	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Fluoride	16984-48-8	2	2	0	100	ug/L	--	--	105	173	0.35	173	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	219	930	0.88	930	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Manganese	7439-96-5	2	2	0	100	ug/L	--	--	20	26	0.17	26	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Nickel	7440-02-0	2	1	1	50	ug/L	5.0	5.0	11	11	0	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	25,100	30,800	0.14	30,800	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Nitrite	14797-65-0	2	0	2	0	ug/L	125	131	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	137	187	0.22	187	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Vanadium	7440-62-2	2	1	1	50	ug/L	10	10	5.9	5.9	0	5.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	non-Rad	Zinc	7440-66-6	2	2	0	100	ug/L	--	--	13	35	0.65	35	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	Rad	Strontium-90	10098-97-2	2	2	0	100	pCi/L	--	--	260	380	0.27	380	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-104A	Rad	Tritium	10028-17-8	2	2	0	100	pCi/L	--	--	9,700	11,000	0.089	11,000	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	1.8	1.8	0	1.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	51	59	0.061	59	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-105A	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	19	19	0	19	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Chromium	7440-47-3	5	4	1	80	ug/L	5.0	5.0	4.4	6.6	0.17	6.3	95% KM (t) UCL	--
199-N-105A	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Fluoride	16984-48-8	5	3	2	60	ug/L	46	50	55	95	0.26	89	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-105A	non-Rad	Iron	7439-89-6	5	3	2	60	ug/L	20	30	21	37	0.30	33	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-105A	non-Rad	Manganese	7439-96-5	5	1	4	20	ug/L	1.0	4.0	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-105A	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	0.84	0.84	0	0.84	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Nickel	7440-02-0	5	3	2	60	ug/L	4.0	5.0	2.6	4.7	0.30	4.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-105A	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	100,000	142,000	0.14	129,549	95% Student's-t UCL	--
199-N-105A	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	20	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-105A	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	366	420	0.059	420	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-105A	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.0	1.0	0	1.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-105A	non-Rad	Vanadium	7440-62-2	5	2	3	40	ug/L	4.4	10	2.7	2.8	0.033	2.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-105A	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.3	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-105A	Rad	Cesium-137	10045-97-3	3	0	3	0	pCi/L	1.9	13	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-105A	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	1,150	6,100	0.84	6,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-105A	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	10,300	12,000	0.065	12,000	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-106A	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	17	17	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	37	42	0.053	41	95% Student's-t UCL	--
199-N-106A	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	21	21	0	21	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Chromium	7440-47-3	5	4	1	80	ug/L	5.0	5.0	3.4	6.8	0.33	6.3	95% KM (t) UCL	--
199-N-106A	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.68	0.68	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	69	110	0.19	105	95% KM (t) UCL	--
199-N-106A	non-Rad	Iron	7439-89-6	5	0	5	0	ug/L	13	30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-106A	non-Rad	Manganese	7439-96-5	5	0	5	0	ug/L	0.88	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-106A	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.0	1.0	0	1.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Nickel	7440-02-0	5	0	5	0	ug/L	0.80	67	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-106A	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	42,100	45,600	0.039	45,422	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-106A	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	9.9	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-106A	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	341	395	0.060	378	95% Student's-t UCL	--
199-N-106A	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-106A	non-Rad	Vanadium	7440-62-2	5	3	2	60	ug/L	4.1	10	6.0	7.9	0.14	7.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-106A	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-106A	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	2.7	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-106A	Rad	Strontium-90	10098-97-2	6	6	0	100	pCi/L	--	--	1,410	2,800	0.21	2,548	95% Student's-t UCL	--
199-N-106A	Rad	Tritium	10028-17-8	6	6	0	100	pCi/L	--	--	9,220	13,000	0.14	12,375	95% Student's-t UCL	--
199-N-14	non-Rad	Aluminum	7429-90-5	4	1	3	25	ug/L	14	17	41	41	0	41	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-14	non-Rad	Antimony	7440-36-0	4	1	3	25	ug/L	0.084	1.7	0.15	0.15	0	0.15	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-14	non-Rad	Arsenic	7440-38-2	4	4	0	100	ug/L	--	--	1.2	1.7	0.14	1.7	95% Student's-t UCL	--
199-N-14	non-Rad	Barium	7440-39-3	8	8	0	100	ug/L	--	--	38	50	0.090	45	95% Student's-t UCL	--
199-N-14	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.27	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-14	non-Rad	Boron	7440-42-8	4	4	0	100	ug/L	--	--	16	23	0.15	23	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-14	non-Rad	Cadmium	7440-43-9	4	0	4	0	ug/L	0.099	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-14	non-Rad	Chromium	7440-47-3	8	7	1	88	ug/L	5.0	5.0	4.4	8.9	0.28	7.3	95% KM (t) UCL	--
199-N-14	non-Rad	Cobalt	7440-48-4	4	1	3	25	ug/L	0.070	0.22	0.070	0.070	0	0.070	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-14	non-Rad	Copper	7440-50-8	4	1	3	25	ug/L	0.68	1.1	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-N-14	non-Rad	Fluoride	16984-48-8	8	5	3	63	ug/L	46	66	70	110	0.17	101	95% KM (t) UCL	--
199-N-14	non-Rad	Iron	7439-89-6	8	5	3	63	ug/L	19	40	19	32	0.25	27	95% KM (t) UCL	--
199-N-14	non-Rad	Manganese	7439-96-5	8	4	4	50	ug/L	2.0	4.0	0.85	1.3	0.21	1.2	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-14	non-Rad	Molybdenum	7439-98-7	4	3	1	75	ug/L	1.0	1.0	0.79	1.1	0.16	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-14	non-Rad	Nickel	7440-02-0	8	2	6	25	ug/L	1.5	10	2.5	3.8	0.29	3.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-14	non-Rad	Nitrate	14797-55-8	8	8	0	100	ug/L	--	--	42,500	54,000	0.065	51,222	95% Student's-t UCL	--
199-N-14	non-Rad	Nitrite	14797-65-0	8	0	8	0	ug/L	125	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-14	non-Rad	Selenium	7782-49-2	4	4	0	100	ug/L	--	--	1.4	2.8	0.30	2.7	95% Student's-t UCL	--
199-N-14	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-14	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	267	368	0.093	328	95% Student's-t UCL	--
199-N-14	non-Rad	Thallium	7440-28-0	4	1	3	25	ug/L	0.014	0.55	0.80	0.80	0	0.80	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-14	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	1.1	1.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-14	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	0.71	0.91	0.12	0.89	95% Student's-t UCL	--
199-N-14	non-Rad	Vanadium	7440-62-2	8	5	3	63	ug/L	4.4	10	3.8	8.6	0.39	6.8	95% KM (t) UCL	--
199-N-14	non-Rad	Zinc	7440-66-6	8	0	8	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-14	Rad	Cesium-137	10045-97-3	3	0	3	0	pCi/L	1.8	11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-14	Rad	Strontium-90	10098-97-2	8	8	0	100	pCi/L	--	--	960	1,380	0.12	1,321	95% Student's-t UCL	--
199-N-14	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	8,930	11,000	0.075	10,765	95% Student's-t UCL	--
199-N-16	non-Rad	Acenaphthene	83-32-9	2	0	2	0	ug/L	0.65	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Aluminum	7429-90-5	2	0	2	0	ug/L	10	13	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Anthracene	120-12-7	2	0	2	0	ug/L	0.020	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-16	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	0.60	1.7	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	0.95	0.95	0.55	0.55	0	0.55	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	26	46	0.39	46	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Benzo(a)anthracene	56-55-3	2	0	2	0	ug/L	0.063	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Benzo(a)pyrene	50-32-8	2	1	1	50	ug/L	0.075	0.075	0.26	0.26	0	0.26	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	20	20	0	20	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Cadmium	7440-43-9	2	2	0	100	ug/L	--	--	3.0	27	1.1	27	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	2.3	61	1.3	61	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Chrysene	218-01-9	2	0	2	0	ug/L	0.035	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Cobalt	7440-48-4	2	2	0	100	ug/L	--	--	0.75	1.3	0.36	1.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	2.8	13	0.92	13	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Dibenz[a,h]anthracen	53-70-3	2	0	2	0	ug/L	0.15	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Fluoranthene	206-44-0	2	0	2	0	ug/L	0.18	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Fluorene	86-73-7	2	0	2	0	ug/L	0.071	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Fluoride	16984-48-8	2	0	2	0	ug/L	46	72	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Hexavalent Chromiur	18540-29-9	2	0	2	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Indeno(1,2,3-cd)pyrer	193-39-5	2	0	2	0	ug/L	0.14	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	412	519	0.16	519	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-16	non-Rad	Manganese	7439-96-5	2	2	0	100	ug/L	--	--	227	274	0.13	274	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Molybdenum	7439-98-7	2	1	1	50	ug/L	1.0	1.0	1.7	1.7	0	1.7	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Naphthalene	91-20-3	2	0	2	0	ug/L	0.20	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Nickel	7440-02-0	2	2	0	100	ug/L	--	--	43	58	0.20	58	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	4,210	23,800	0.99	23,800	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Nitrite	14797-65-0	2	2	0	100	ug/L	--	--	227	293	0.18	293	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Pyrene	129-00-0	2	0	2	0	ug/L	0.083	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	1.6	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Silver	7440-22-4	2	1	1	50	ug/L	0.10	0.10	0.063	0.063	0	0.063	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	327	437	0.20	437	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.10	0.55	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Vanadium	7440-62-2	2	0	2	0	ug/L	4.1	5.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	non-Rad	Zinc	7440-66-6	2	2	0	100	ug/L	--	--	11	43	0.83	43	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	Rad	Carbon-14	14762-75-5	2	1	1	50	pCi/L	51	51	11	11	0	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	Rad	Cesium-137	10045-97-3	2	0	2	0	pCi/L	7.8	9.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	Rad	Strontium-90	10098-97-2	2	0	2	0	pCi/L	0.92	1.1	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	Rad	Technetium-99	14133-76-7	2	0	2	0	pCi/L	5.6	10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-16	Rad	Tritium	10028-17-8	2	2	0	100	pCi/L	--	--	300	503	0.36	503	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-165	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	0.52	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-165	non-Rad	Acenaphthene	83-32-9	3	0	3	0	ug/L	0.033	0.95	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-165	non-Rad	Acetone	67-64-1	4	0	4	0	ug/L	0.34	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-165	non-Rad	Aluminum	7429-90-5	10	9	1	90	ug/L	20	20	14	40	0.37	31	95% KM (t) UCL	--
199-N-165	non-Rad	Anthracene	120-12-7	3	1	2	33	ug/L	0.037	0.19	0.054	0.054	0	0.054	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-165	non-Rad	Antimony	7440-36-0	10	0	10	0	ug/L	0.60	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-165	non-Rad	Arsenic	7440-38-2	10	10	0	100	ug/L	--	--	10	17	0.17	15	95% Student's-t UCL	--
199-N-165	non-Rad	Barium	7440-39-3	17	17	0	100	ug/L	--	--	16	31	0.22	24	95% Student's-t UCL	--
199-N-165	non-Rad	Benzo(a)anthracene	56-55-3	3	0	3	0	ug/L	0.029	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-165	non-Rad	Benzo(a)pyrene	50-32-8	3	0	3	0	ug/L	0.050	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-165	non-Rad	Beryllium	7440-41-7	10	0	10	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-165	non-Rad	Boron	7440-42-8	7	4	3	57	ug/L	15	15	11	16	0.18	14	95% KM (t) UCL	--
199-N-165	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.088	0.088	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-165	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-165	non-Rad	Cadmium	7440-43-9	10	0	10	0	ug/L	0.10	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-165	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-165	non-Rad	Chloroform	67-66-3	4	4	0	100	ug/L	--	--	2.8	5.0	0.27	4.8	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-165	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.077	0.077	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-165	non-Rad	Chromium	7440-47-3	17	12	5	71	ug/L	5.0	17	1.7	4.2	0.31	3.0	95% KM Adjusted Gamma UCL	--
199-N-165	non-Rad	Chrysene	218-01-9	3	0	3	0	ug/L	0.035	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-165	non-Rad	Cobalt	7440-48-4	10	0	10	0	ug/L	0.10	0.22	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-165	non-Rad	Copper	7440-50-8	10	10	0	100	ug/L	--	--	0.50	1.9	0.55	1.1	95% Modified-t UCL	--
199-N-165	non-Rad	ɴibenz[a,h]anthracen	53-70-3	3	0	3	0	ug/L	0.044	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-165	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-165	non-Rad	Fluoranthene	206-44-0	3	0	3	0	ug/L	0.032	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-165	non-Rad	Fluorene	86-73-7	3	0	3	0	ug/L	0.030	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-165	non-Rad	Fluoride	16984-48-8	17	17	0	100	ug/L	--	--	392	658	0.13	588	95% Student's-t UCL	--
199-N-165	non-Rad	ɴexavalent Chromiur	18540-29-9	19	12	7	63	ug/L	2.0	8.0	1.8	3.3	0.22	2.5	95% KM (t) UCL	--
199-N-165	non-Rad	ɴdeno(1,2,3-cd)pyrer	193-39-5	3	0	3	0	ug/L	0.038	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-165	non-Rad	Iron	7439-89-6	12	3	9	25	ug/L	19	64	22	49	0.47	30	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-165	non-Rad	Manganese	7439-96-5	14	4	10	29	ug/L	1.0	5.0	0.91	2.3	0.47	1.5	95% KM (t) UCL	--
199-N-165	non-Rad	Methylene chloride	75-09-2	4	0	4	0	ug/L	0.27	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-165	non-Rad	Molybdenum	7439-98-7	10	10	0	100	ug/L	--	--	4.2	7.9	0.19	5.9	95% Modified-t UCL	--
199-N-165	non-Rad	Naphthalene	91-20-3	3	0	3	0	ug/L	0.064	0.95	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-165	non-Rad	Nickel	7440-02-0	14	2	12	14	ug/L	0.50	67	0.28	0.52	0.43	0.41	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-165	non-Rad	Nitrate	14797-55-8	17	17	0	100	ug/L	--	--	21,800	46,900	0.23	35,198	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-165	non-Rad	Nitrite	14797-65-0	17	2	15	12	ug/L	9.9	131	178	218	0.14	69	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-165	non-Rad	Pyrene	129-00-0	3	0	3	0	ug/L	0.035	0.19	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-165	non-Rad	Selenium	7782-49-2	10	4	6	40	ug/L	1.5	2.0	1.5	2.1	0.12	1.8	95% KM (t) UCL	--
199-N-165	non-Rad	Silver	7440-22-4	10	0	10	0	ug/L	0.040	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-165	non-Rad	Strontium	7440-24-6	11	11	0	100	ug/L	--	--	68	103	0.16	89	95% Student's-t UCL	--
199-N-165	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-165	non-Rad	Thallium	7440-28-0	10	0	10	0	ug/L	0.10	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-165	non-Rad	Tin	7440-31-5	10	0	10	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-165	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.072	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-165	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-165	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	1.4	1.9	0.10	1.8	95% Student's-t UCL	--
199-N-165	non-Rad	Vanadium	7440-62-2	13	12	1	92	ug/L	22	22	23	34	0.11	32	95% KM (t) UCL	--
199-N-165	non-Rad	Zinc	7440-66-6	14	2	12	14	ug/L	3.3	42	4.5	7.3	0.33	4.6	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-165	Rad	Carbon-14	14762-75-5	5	3	2	60	pCi/L	18	50	8.9	13	0.20	13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-165	Rad	Cesium-137	10045-97-3	5	0	5	0	pCi/L	2.0	7.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-165	Rad	Strontium-90	10098-97-2	5	1	4	20	pCi/L	0.67	2.0	1.6	1.6	0	1.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-165	Rad	Technetium-99	14133-76-7	5	0	5	0	pCi/L	5.6	11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-N-165	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	320	610	0.20	541	95% Student's-t UCL	--
199-N-167	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-167	non-Rad	Acenaphthene	83-32-9	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-167	non-Rad	Acetone	67-64-1	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-167	non-Rad	Aluminum	7429-90-5	4	3	1	75	ug/L	15	15	159	256	0.24	256	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-167	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-167	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-167	non-Rad	Arsenic	7440-38-2	4	3	1	75	ug/L	8.5	8.5	1.9	2.3	0.10	2.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-167	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	80	139	0.23	139	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-167	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-167	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-167	non-Rad	Boron	7440-42-8	4	4	0	100	ug/L	--	--	23	29	0.11	28	95% Student's-t UCL	--
199-N-167	non-Rad	Cadmium	7440-43-9	4	1	3	25	ug/L	0.11	0.11	0.43	0.43	0	0.43	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-167	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-167	non-Rad	Chloroform	67-66-3	4	3	1	75	ug/L	0.30	0.30	0.69	1.6	0.43	1.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-167	non-Rad	Chromium	7440-47-3	4	0	4	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-167	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-167	non-Rad	Cobalt	7440-48-4	4	4	0	100	ug/L	--	--	0.31	1.6	0.50	1.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	1.3	3.1	0.32	3.1	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	ɔibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-167	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-167	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-167	non-Rad	Fluorene	86-73-7	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-167	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	93	110	0.078	110	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-167	non-Rad	Iron	7439-89-6	4	3	1	75	ug/L	30	30	312	377	0.094	377	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-167	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	8.7	8.7	0	8.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-167	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	172	730	0.50	730	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-167	non-Rad	Methylene chloride	75-09-2	4	1	3	25	ug/L	1.6	1.6	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-167	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	0.95	2.2	0.31	2.2	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Naphthalene	91-20-3	4	0	4	0	ug/L	0.028	0.63	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-167	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	1.2	2.4	0.29	2.4	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	19,500	57,500	0.43	57,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Nitrite	14797-65-0	4	4	0	100	ug/L	--	--	128	394	0.50	387	95% Student's-t UCL	--
199-N-167	non-Rad	Pyrene	129-00-0	4	1	3	25	ug/L	0.028	0.63	0.094	0.094	0	0.094	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-167	non-Rad	Selenium	7782-49-2	4	1	3	25	ug/L	1.5	7.5	2.0	2.0	0	2.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-167	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-167	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	572	682	0.078	682	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-167	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-167	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-167	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-167	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-167	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	2.1	3.5	0.23	3.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-167	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	3.8	4.7	0.10	4.7	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-167	non-Rad	Zinc	7440-66-6	4	3	1	75	ug/L	3.5	3.5	9.5	16	0.29	16	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-169	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-169	non-Rad	Acenaphthene	83-32-9	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-169	non-Rad	Acetone	67-64-1	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-169	non-Rad	Aluminum	7429-90-5	4	3	1	75	ug/L	15	15	67	436	0.85	406	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-169	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-169	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-169	non-Rad	Arsenic	7440-38-2	4	3	1	75	ug/L	8.5	8.5	2.4	2.7	0.051	2.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-169	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	100	116	0.064	116	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-169	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-169	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-169	non-Rad	Boron	7440-42-8	4	3	1	75	ug/L	20	20	21	25	0.10	25	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-169	non-Rad	Cadmium	7440-43-9	4	4	0	100	ug/L	--	--	0.22	0.33	0.19	0.32	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-169	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-169	non-Rad	Chloroform	67-66-3	4	2	2	50	ug/L	0.30	0.30	0.72	0.87	0.13	0.87	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-169	non-Rad	Chromium	7440-47-3	4	2	2	50	ug/L	2.0	2.0	2.4	2.6	0.049	2.6	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-169	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-169	non-Rad	Cobalt	7440-48-4	4	4	0	100	ug/L	--	--	1.9	2.3	0.088	2.3	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	3.9	8.5	0.38	8.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	›ibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-169	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-169	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-169	non-Rad	Fluorene	86-73-7	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-169	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	81	100	0.097	100	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-169	non-Rad	Iron	7439-89-6	4	3	1	75	ug/L	30	30	122	601	0.71	577	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-169	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	9.8	9.8	0	9.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-169	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	565	1,190	0.32	1,190	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Methylene chloride	75-09-2	4	1	3	25	ug/L	1.6	1.6	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-169	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	1.4	1.9	0.13	1.9	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Naphthalene	91-20-3	4	1	3	25	ug/L	0.028	0.65	0.067	0.067	0	0.067	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-169	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	2.4	3.7	0.19	3.7	95% Student's-t UCL	--
199-N-169	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	37,000	48,700	0.13	48,700	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Nitrite	14797-65-0	4	4	0	100	ug/L	--	--	657	1,170	0.28	1,137	95% Student's-t UCL	--
199-N-169	non-Rad	Pyrene	129-00-0	4	0	4	0	ug/L	0.028	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-169	non-Rad	Selenium	7782-49-2	4	1	3	25	ug/L	1.5	7.5	1.8	1.8	0	1.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-169	non-Rad	Silver	7440-22-4	4	1	3	25	ug/L	0.20	0.20	0.86	0.86	0	0.86	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-169	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	582	636	0.041	636	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-169	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-169	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-169	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-169	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-169	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	2.5	3.3	0.14	3.2	95% Student's-t UCL	--
199-N-169	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	3.7	5.2	0.15	5.2	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-169	non-Rad	Zinc	7440-66-6	4	3	1	75	ug/L	3.5	3.5	5.4	32	1.0	28	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-171	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-171	non-Rad	Acenaphthene	83-32-9	4	2	2	50	ug/L	0.028	0.61	0.57	0.98	0.37	0.98	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-171	non-Rad	Acetone	67-64-1	4	1	3	25	ug/L	3.0	3.0	3.4	3.4	0	3.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-171	non-Rad	Aluminum	7429-90-5	4	3	1	75	ug/L	15	15	29	179	0.97	162	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-171	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-171	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-171	non-Rad	Arsenic	7440-38-2	4	3	1	75	ug/L	8.5	8.5	1.9	3.8	0.36	3.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-171	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	149	194	0.13	194	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-171	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-171	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-171	non-Rad	Boron	7440-42-8	4	4	0	100	ug/L	--	--	19	25	0.12	25	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Cadmium	7440-43-9	4	4	0	100	ug/L	--	--	0.17	0.61	0.62	0.60	95% Student's-t UCL	--
199-N-171	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-171	non-Rad	Chloroform	67-66-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-171	non-Rad	Chromium	7440-47-3	4	1	3	25	ug/L	2.0	2.0	2.2	2.2	0	2.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-171	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-171	non-Rad	Cobalt	7440-48-4	4	4	0	100	ug/L	--	--	0.18	0.60	0.64	0.54	95% Student's-t UCL	--
199-N-171	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	2.9	8.8	0.41	8.7	95% Student's-t UCL	--
199-N-171	non-Rad	ibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-171	non-Rad	Ethylbenzene	100-41-4	4	1	3	25	ug/L	0.30	0.30	0.37	0.37	0	0.37	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-171	non-Rad	Fluoranthene	206-44-0	4	1	3	25	ug/L	0.029	0.61	0.076	0.076	0	0.076	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-171	non-Rad	Fluorene	86-73-7	4	4	0	100	ug/L	--	--	1.4	3.4	0.47	3.2	95% Student's-t UCL	--
199-N-171	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	62	100	0.26	100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	ndeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-171	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	607	2,080	0.48	2,080	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	9.3	9.3	0	9.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-171	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	3,240	4,090	0.12	4,090	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Methylene chloride	75-09-2	4	1	3	25	ug/L	1.6	1.6	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-171	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	0.93	4.5	0.60	4.3	95% Student's-t UCL	--
199-N-171	non-Rad	Naphthalene	91-20-3	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-171	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	0.89	1.9	0.30	1.9	95% Student's-t UCL	--
199-N-171	non-Rad	Nitrate	14797-55-8	4	2	2	50	ug/L	146	1,460	3,540	5,310	0.28	5,310	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-171	non-Rad	Nitrite	14797-65-0	4	1	3	25	ug/L	125	125	493	493	0	493	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-171	non-Rad	Pyrene	129-00-0	4	1	3	25	ug/L	0.029	0.61	0.14	0.14	0	0.14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-171	non-Rad	Selenium	7782-49-2	4	0	4	0	ug/L	1.5	7.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-171	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-171	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	709	856	0.087	856	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-171	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-171	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-171	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-171	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-171	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	1.6	3.3	0.31	3.1	95% Student's-t UCL	--
199-N-171	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	1.6	3.0	0.26	3.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-171	non-Rad	Zinc	7440-66-6	4	2	2	50	ug/L	3.5	3.5	6.9	17	0.61	17	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-172	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-172	non-Rad	Acenaphthene	83-32-9	4	1	3	25	ug/L	0.028	0.61	0.30	0.30	0	0.30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-172	non-Rad	Acetone	67-64-1	4	1	3	25	ug/L	3.0	3.0	3.3	3.3	0	3.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-172	non-Rad	Aluminum	7429-90-5	4	4	0	100	ug/L	--	--	83	942	0.85	942	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-172	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-172	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-172	non-Rad	Arsenic	7440-38-2	4	3	1	75	ug/L	8.5	8.5	3.6	4.8	0.17	4.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-172	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	62	104	0.21	104	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-172	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-172	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-172	non-Rad	Boron	7440-42-8	4	4	0	100	ug/L	--	--	21	30	0.16	30	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Cadmium	7440-43-9	4	2	2	50	ug/L	0.11	0.11	0.15	0.26	0.38	0.26	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-172	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-172	non-Rad	Chloroform	67-66-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!
199-N-172	non-Rad	Chromium	7440-47-3	4	3	1	75	ug/L	2.0	2.0	3.5	7.9	0.40	7.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-172	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-172	non-Rad	Cobalt	7440-48-4	4	4	0	100	ug/L	--	--	0.19	2.7	0.74	2.6	95% Student's-t UCL	--
199-N-172	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	2.7	14	0.57	14	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Dibenz[a,h]anthracen	53-70-3	4	1	3	25	ug/L	0.029	0.61	0.047	0.047	0	0.047	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-172	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-172	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-172	non-Rad	Fluorene	86-73-7	4	1	3	25	ug/L	0.028	0.61	0.81	0.81	0	0.81	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-172	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	88	200	0.41	185	95% Student's-t UCL	--
199-N-172	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.028	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-172	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	415	2,760	0.72	2,760	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	8.6	8.6	0	8.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-172	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	1,560	2,660	0.27	2,640	95% Student's-t UCL	--
199-N-172	non-Rad	Methylene chloride	75-09-2	4	1	3	25	ug/L	1.6	1.6	3.7	3.7	0	3.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-172	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	0.63	6.8	0.69	6.8	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Naphthalene	91-20-3	4	1	3	25	ug/L	0.029	0.61	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-172	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	1.0	4.5	0.56	4.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Nitrate	14797-55-8	4	3	1	75	ug/L	146	146	753	1,600	0.35	1,600	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-172	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	125	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-172	non-Rad	Pyrene	129-00-0	4	1	3	25	ug/L	0.028	0.11	0.96	0.96	0	0.96	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-172	non-Rad	Selenium	7782-49-2	4	0	4	0	ug/L	1.5	7.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-172	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-172	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	785	901	0.062	901	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-172	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-172	non-Rad	Tin	7440-31-5	4	3	1	75	ug/L	1.0	1.0	1.5	1.9	0.12	1.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-172	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-172	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-172	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	2.0	9.5	0.62	9.0	95% Student's-t UCL	--
199-N-172	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	1.4	4.0	0.37	4.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-172	non-Rad	Zinc	7440-66-6	4	4	0	100	ug/L	--	--	6.3	222	1.5	222	Maximum Detect	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-173	non-Rad	2-Butanone	78-93-3	11	0	11	0	ug/L	0.47	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-173	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	7.8	7.8	0	7.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Acenaphthene	83-32-9	11	0	11	0	ug/L	0.026	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-173	non-Rad	Acetone	67-64-1	11	0	11	0	ug/L	0.34	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-173	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Aluminum	7429-90-5	8	4	4	50	ug/L	15	17	21	130	0.56	84	95% KM (t) UCL	--
199-N-173	non-Rad	Anthracene	120-12-7	11	2	9	18	ug/L	0.020	0.94	0.061	0.076	0.15	0.051	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-173	non-Rad	Antimony	7440-36-0	7	1	6	14	ug/L	0.084	1.7	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-173	non-Rad	Arsenic	7440-38-2	7	2	5	29	ug/L	1.2	8.5	0.27	0.39	0.26	0.39	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-173	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	112	253	0.22	223	95% Student's-t UCL	--
199-N-173	non-Rad	Benzo(a)anthracene	56-55-3	11	1	10	9.1	ug/L	0.026	0.94	0.085	0.085	0	0.085	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-173	non-Rad	Benzo(a)pyrene	50-32-8	11	0	11	0	ug/L	0.026	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-173	non-Rad	Beryllium	7440-41-7	7	0	7	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-173	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	1	0	100	ug/L	--	--	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Boron	7440-42-8	7	7	0	100	ug/L	--	--	9.3	38	0.40	31	95% Student's-t UCL	--
199-N-173	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Butylbenzylphthalate	85-68-7	1	1	0	100	ug/L	--	--	1.6	1.6	0	1.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Cadmium	7440-43-9	7	1	6	14	ug/L	0.099	0.11	0.10	0.10	0	0.10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-173	non-Rad	Carbon tetrachloride	56-23-5	11	0	11	0	ug/L	0.13	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-173	non-Rad	Chloroform	67-66-3	11	0	11	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!
199-N-173	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Chromium	7440-47-3	14	2	12	14	ug/L	1.0	5.0	3.9	14	0.80	7.8	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-173	non-Rad	Chrysene	218-01-9	11	1	10	9.1	ug/L	0.026	0.94	0.066	0.066	0	0.066	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-173	non-Rad	Cobalt	7440-48-4	7	7	0	100	ug/L	--	--	0.11	1.1	0.65	0.79	95% Student's-t UCL	--
199-N-173	non-Rad	Copper	7440-50-8	7	7	0	100	ug/L	--	--	1.5	9.4	0.79	6.5	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-173	non-Rad	›ibenz[a,h]anthracen	53-70-3	11	1	10	9.1	ug/L	0.028	0.94	0.053	0.053	0	0.053	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-173	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Ethylbenzene	100-41-4	11	0	11	0	ug/L	0.090	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-173	non-Rad	Fluoranthene	206-44-0	11	3	8	27	ug/L	0.026	0.94	0.050	0.079	0.22	0.065	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-173	non-Rad	Fluorene	86-73-7	11	4	7	36	ug/L	0.026	0.94	0.046	0.84	1.1	0.33	95% KM (t) UCL	--
199-N-173	non-Rad	Fluoride	16984-48-8	12	11	1	92	ug/L	120	120	59	140	0.22	123	95% KM (t) UCL	--
199-N-173	non-Rad	›deno(1,2,3-cd)pyrer	193-39-5	11	0	11	0	ug/L	0.026	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-173	non-Rad	Iron	7439-89-6	14	9	5	64	ug/L	13	30	21	1,100	2.0	458	95% KM (Chebyshev) UCL	--
199-N-173	non-Rad	Lithium	7439-93-2	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Manganese	7439-96-5	14	14	0	100	ug/L	--	--	192	4,320	0.62	2,689	95% Student's-t UCL	--
199-N-173	non-Rad	Methylene chloride	75-09-2	11	1	10	9.1	ug/L	0.27	1.6	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-173	non-Rad	Molybdenum	7439-98-7	11	7	4	64	ug/L	1.9	4.0	0.32	1.3	0.42	1.1	95% KM (t) UCL	--
199-N-173	non-Rad	Naphthalene	91-20-3	11	3	8	27	ug/L	0.028	0.94	0.088	4.1	1.6	1.2	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-173	non-Rad	Nickel	7440-02-0	14	9	5	64	ug/L	1.5	10	1.3	23	1.3	19	95% KM Bootstrap t UCL	--
199-N-173	non-Rad	Nitrate	14797-55-8	12	11	1	92	ug/L	421	421	3,980	111,000	1.4	85,258	95% KM H-UCL	--
199-N-173	non-Rad	Nitrite	14797-65-0	12	4	8	33	ug/L	125	131	145	851	0.72	351	95% KM (t) UCL	--
199-N-173	non-Rad	Pyrene	129-00-0	11	2	9	18	ug/L	0.026	0.94	0.042	0.050	0.12	0.044	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-173	non-Rad	Selenium	7782-49-2	7	0	7	0	ug/L	0.66	7.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-173	non-Rad	Silver	7440-22-4	7	0	7	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-173	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	257	974	0.27	861	95% Student's-t UCL	--
199-N-173	non-Rad	Tetrachloroethene	127-18-4	11	0	11	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-173	non-Rad	Thallium	7440-28-0	7	1	6	14	ug/L	0.014	0.55	0.030	0.030	0	0.030	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-173	non-Rad	Tin	7440-31-5	7	0	7	0	ug/L	1.0	1.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-173	non-Rad	Toluene	108-88-3	11	1	10	9.1	ug/L	0.070	1.0	0.21	0.21	0	0.21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-173	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-173	non-Rad	Trichloroethene	79-01-6	11	0	11	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-173	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	2.7	4.4	0.17	4.1	95% Student's-t UCL	--
199-N-173	non-Rad	Vanadium	7440-62-2	14	3	11	21	ug/L	0.93	10	1.0	1.2	0.11	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-173	non-Rad	Zinc	7440-66-6	14	8	6	57	ug/L	3.3	9.1	5.1	24	0.51	12	95% KM (t) UCL	--
199-N-173	Rad	Strontium-90	10098-97-2	7	7	0	100	pCi/L	--	--	15	26	0.17	24	95% Student's-t UCL	--
199-N-173	Rad	Tritium	10028-17-8	4	3	1	75	pCi/L	290	290	1,150	1,600	0.17	1,600	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-182	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	0.52	0.52	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Acetone	67-64-1	1	1	0	100	ug/L	--	--	0.41	0.41	0	0.41	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Aldrin	309-00-2	1	0	1	0	ug/L	0.010	0.010	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aldrin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	13	17	0.22	17	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Anthracene	120-12-7	1	1	0	100	ug/L	--	--	0.027	0.027	0	0.027	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	0.60	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	1.7	1.7	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	55	69	0.100	68	95% Student's-t UCL	--
199-N-182	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-182	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	-Hexachlorocyclohex	319-85-7	1	0	1	0	ug/L	0.013	0.013	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	14	15	0.079	15	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.088	0.088	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.10	0.11	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	1.4	1.4	0	1.4	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.077	0.077	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Chromium	7440-47-3	5	3	2	60	ug/L	5.0	5.0	4.3	6.4	0.23	5.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-182	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Cobalt	7440-48-4	2	0	2	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	0.20	0.20	1.3	1.3	0	1.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Cyanide	57-12-5	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cyanide was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	xibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	0.086	0.086	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-182	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Fluoride	16984-48-8	6	4	2	67	ug/L	46	46	61	106	0.22	96	95% KM (t) UCL	--
199-N-182	non-Rad	Hexavalent Chromiur	18540-29-9	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	ndeno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Iron	7439-89-6	5	2	3	40	ug/L	19	30	16	20	0.13	20	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-182	non-Rad	Manganese	7439-96-5	5	2	3	40	ug/L	1.0	4.0	0.79	3.9	0.94	3.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-182	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Methanol	67-56-1	1	0	1	0	ug/L	500	500	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	2.6	15	1.00	15	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Nickel	7440-02-0	5	0	5	0	ug/L	0.50	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-182	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	42,100	59,300	0.11	53,761	95% Student's-t UCL	--
199-N-182	non-Rad	Nitrite	14797-65-0	6	2	4	33	ug/L	125	250	187	239	0.17	219	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-182	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	1.5	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.10	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	283	328	0.055	321	95% Student's-t UCL	--
199-N-182	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.10	0.45	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-182	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	0.072	0.072	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Toxaphene	8001-35-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toxaphene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	non-Rad	Vanadium	7440-62-2	5	1	4	20	ug/L	4.4	10	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-182	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.5	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-182	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	5.5	5.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.068	0.068	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	52	144	0.37	143	95% Student's-t UCL	--
199-N-182	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	7.4	7.4	0	7.4	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Tritium	10028-17-8	6	6	0	100	pCi/L	--	--	7,750	12,000	0.20	11,153	95% Student's-t UCL	--
199-N-182	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.42	0.42	0	0.42	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.098	0.098	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-182	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.31	0.31	0	0.31	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	2-Butanone	78-93-3	11	1	10	9.1	ug/L	0.52	3.0	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-183	non-Rad	Acenaphthene	83-32-9	10	7	3	70	ug/L	0.030	0.65	0.14	2.3	1.6	1.3	95% KM (Chebyshev) UCL	--
199-N-183	non-Rad	Acetone	67-64-1	11	1	10	9.1	ug/L	0.34	5.0	2.8	2.8	0	2.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-183	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Aldrin	309-00-2	1	1	0	100	ug/L	--	--	0.025	0.025	0	0.025	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aldrin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Aluminum	7429-90-5	7	3	4	43	ug/L	15	15	17	64	0.73	39	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-183	non-Rad	Anthracene	120-12-7	10	5	5	50	ug/L	0.030	0.30	0.051	0.19	0.62	0.097	95% KM (t) UCL	--
199-N-183	non-Rad	Antimony	7440-36-0	7	0	7	0	ug/L	0.084	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-183	non-Rad	Arsenic	7440-38-2	7	6	1	86	ug/L	1.7	1.7	2.3	4.4	0.24	3.6	95% KM (t) UCL	--
199-N-183	non-Rad	Barium	7440-39-3	10	10	0	100	ug/L	--	--	168	234	0.10	204	95% Student's-t UCL	--
199-N-183	non-Rad	Benzo(a)anthracene	56-55-3	10	0	10	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-183	non-Rad	Benzo(a)pyrene	50-32-8	10	0	10	0	ug/L	0.030	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-183	non-Rad	Beryllium	7440-41-7	7	0	7	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-183	non-Rad	-Hexachlorocyclohex	319-85-7	1	1	0	100	ug/L	--	--	0.45	0.45	0	0.45	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Boron	7440-42-8	7	7	0	100	ug/L	--	--	16	26	0.20	23	95% Student's-t UCL	--
199-N-183	non-Rad	romodichloromethar	75-27-4	2	0	2	0	ug/L	0.088	0.14	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Bromomethane	74-83-9	3	1	2	33	ug/L	0.25	0.25	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-N-183	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Cadmium	7440-43-9	7	1	6	14	ug/L	0.099	0.11	0.18	0.18	0	0.18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-183	non-Rad	Carbon tetrachloride	56-23-5	11	1	10	9.1	ug/L	0.13	1.0	0.53	0.53	0	0.53	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-183	non-Rad	Chloroform	67-66-3	11	0	11	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!
199-N-183	non-Rad	Chloromethane	74-87-3	2	0	2	0	ug/L	0.077	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Chromium	7440-47-3	10	1	9	10	ug/L	0.20	5.0	2.2	2.2	0	2.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-183	non-Rad	Chrysene	218-01-9	10	0	10	0	ug/L	0.030	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-183	non-Rad	Cobalt	7440-48-4	7	7	0	100	ug/L	--	--	1.2	3.2	0.39	2.3	95% Student's-t UCL	--
199-N-183	non-Rad	Copper	7440-50-8	7	7	0	100	ug/L	--	--	1.0	3.0	0.40	2.2	95% Student's-t UCL	--
199-N-183	non-Rad	Cyanide	57-12-5	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cyanide was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	›ibenz[a,h]anthracen	53-70-3	10	0	10	0	ug/L	0.030	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-183	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Ethylbenzene	100-41-4	11	0	11	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-183	non-Rad	Fluoranthene	206-44-0	10	4	6	40	ug/L	0.030	0.30	0.061	0.59	1.3	0.36	95% KM (Chebyshev) UCL	--
199-N-183	non-Rad	Fluorene	86-73-7	10	9	1	90	ug/L	0.071	0.071	0.17	0.49	0.28	0.38	95% KM (t) UCL	--
199-N-183	non-Rad	Fluoride	16984-48-8	11	7	4	64	ug/L	46	66	74	110	0.16	87	95% KM (t) UCL	--
199-N-183	non-Rad	⊣exavalent Chromiur	18540-29-9	6	4	2	67	ug/L	2.0	8.0	3.9	7.2	0.28	6.9	95% KM (t) UCL	--
199-N-183	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	10	0	10	0	ug/L	0.030	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-183	non-Rad	Iron	7439-89-6	10	10	0	100	ug/L	--	--	813	3,450	0.28	2,792	95% Student's-t UCL	--
199-N-183	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	6.7	6.7	0	6.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Manganese	7439-96-5	10	10	0	100	ug/L	--	--	3,030	4,420	0.11	3,809	95% Student's-t UCL	--
199-N-183	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Methanol	67-56-1	1	0	1	0	ug/L	500	500	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Methylene chloride	75-09-2	11	1	10	9.1	ug/L	0.27	1.6	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-183	non-Rad	Molybdenum	7439-98-7	7	7	0	100	ug/L	--	--	2.2	8.5	0.63	5.5	95% H-UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-183	non-Rad	Naphthalene	91-20-3	10	1	9	10	ug/L	0.030	0.34	0.15	0.15	0	0.15	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-183	non-Rad	Nickel	7440-02-0	10	7	3	70	ug/L	1.5	5.0	1.5	8.1	0.72	7.9	95% GROS Adjusted Gamma UCL	--
199-N-183	non-Rad	Nitrate	14797-55-8	11	9	2	82	ug/L	177	292	178	4,210	0.74	2,408	95% KM (t) UCL	--
199-N-183	non-Rad	Nitrite	14797-65-0	11	6	5	55	ug/L	125	250	148	1,320	0.92	640	95% KM (t) UCL	--
199-N-183	non-Rad	Pyrene	129-00-0	10	6	4	60	ug/L	0.030	0.30	0.040	0.56	1.1	0.56	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-183	non-Rad	Selenium	7782-49-2	7	0	7	0	ug/L	0.66	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-183	non-Rad	Silver	7440-22-4	7	0	7	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-183	non-Rad	Strontium	7440-24-6	10	10	0	100	ug/L	--	--	689	888	0.082	831	95% Student's-t UCL	--
199-N-183	non-Rad	Tetrachloroethene	127-18-4	11	0	11	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-183	non-Rad	Thallium	7440-28-0	7	0	7	0	ug/L	0.014	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-183	non-Rad	Tin	7440-31-5	7	1	6	14	ug/L	0.10	1.1	3.4	3.4	0	3.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-183	non-Rad	Toluene	108-88-3	11	0	11	0	ug/L	0.070	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-183	non-Rad	Toxaphene	8001-35-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toxaphene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	non-Rad	Trichloroethene	79-01-6	11	0	11	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-183	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	2.0	2.5	0.071	2.3	95% Student's-t UCL	--
199-N-183	non-Rad	Vanadium	7440-62-2	10	0	10	0	ug/L	0.93	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-183	non-Rad	Zinc	7440-66-6	10	0	10	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-183	Rad	Carbon-14	14762-75-5	1	1	0	100	pCi/L	--	--	55	55	0	55	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Cesium-137	10045-97-3	2	0	2	0	pCi/L	8.2	15	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Plutonium-238	13981-16-3	2	0	2	0	pCi/L	0.074	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Plutonium-239/240	PU-239/240	2	0	2	0	pCi/L	0.022	0.29	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Strontium-90	10098-97-2	6	6	0	100	pCi/L	--	--	74	120	0.19	105	95% Student's-t UCL	--
199-N-183	Rad	Technetium-99	14133-76-7	2	0	2	0	pCi/L	5.8	45	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Tritium	10028-17-8	2	2	0	100	pCi/L	--	--	2,500	3,500	0.24	3,500	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Uranium-233/234	U-233/234	2	2	0	100	pCi/L	--	--	0.88	1.5	0.37	1.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Uranium-235	15117-96-1	2	1	1	50	pCi/L	0.13	0.13	0.11	0.11	0	0.11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-183	Rad	Uranium-238	U-238	2	2	0	100	pCi/L	--	--	1.1	1.3	0.15	1.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	0.52	0.52	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Aldrin	309-00-2	1	0	1	0	ug/L	0.010	0.010	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aldrin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	21	55	0.65	55	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Anthracene	120-12-7	1	1	0	100	ug/L	--	--	0.033	0.033	0	0.033	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Antimony	7440-36-0	2	1	1	50	ug/L	0.60	0.60	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	1.7	2.0	0.095	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	36	68	0.23	64	95% Student's-t UCL	--
199-N-184	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-184	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	-Hexachlorocyclohex	319-85-7	1	0	1	0	ug/L	0.013	0.013	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	;(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	14	17	0.15	17	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.088	0.088	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.10	0.11	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.077	0.077	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Chromium	7440-47-3	5	3	2	60	ug/L	5.0	5.0	5.0	6.0	0.088	5.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-184	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Cobalt	7440-48-4	2	0	0	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Copper	7440-50-8	2	1	0	50	ug/L	0.35	0.35	0	0	0	--		Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Cyanide	57-12-5	1	0	0	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cyanide was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	ibenz[a,h]anthracen	53-70-3	1	0	0	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Diethylphthalate	84-66-2	1	0	0	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-184	non-Rad	Ethylbenzene	100-41-4	1	0	0	0	ug/L	0.086	0.086	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Fluoranthene	206-44-0	1	0	0	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Fluorene	86-73-7	1	0	0	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Fluoride	16984-48-8	6	4	0	67	ug/L	46	46	57	92	0	76	95% KM (t) UCL	--
199-N-184	non-Rad	Hexavalent Chromium	18540-29-9	1	0	0	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	1	0	0	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	48	187	0.51	151	95% Student's-t UCL	--
199-N-184	non-Rad	Manganese	7439-96-5	5	4	0	80	ug/L	4.0	4.0	2.0	11	0	10	95% KM (t) UCL	--
199-N-184	non-Rad	Mercury	7439-97-6	1	0	0	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Methanol	67-56-1	1	0	0	0	ug/L	500	500	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Methylene chloride	75-09-2	1	0	0	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	1.5	10.0	0	10.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Naphthalene	91-20-3	1	0	0	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Nickel	7440-02-0	5	1	0	20	ug/L	2.6	5.0	0	0	0	--		Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-184	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	13,200	63,700	0.39	61,786	95% Student's-t UCL	--
199-N-184	non-Rad	Nitrite	14797-65-0	6	2	0	33	ug/L	20	131	216	221	0	221	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-184	non-Rad	Pyrene	129-00-0	1	0	0	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Selenium	7782-49-2	2	0	0	0	ug/L	1.5	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Silver	7440-22-4	2	0	0	0	ug/L	0.10	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	121	314	0.32	314	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-184	non-Rad	Tetrachloroethene	127-18-4	1	0	0	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Thallium	7440-28-0	2	0	0	0	ug/L	0.10	0.45	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-184	non-Rad	Tin	7440-31-5	2	0	0	0	ug/L	0.10	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Toluene	108-88-3	1	0	0	0	ug/L	0.072	0.072	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Toxaphene	8001-35-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toxaphene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	2.0	2.0	0	2.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	non-Rad	Vanadium	7440-62-2	5	2	3	40	ug/L	4.4	10	2.4	5.0	0.49	5.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-184	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.5	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-184	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	6.8	6.8	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Plutonium-238	13981-16-3	1	0	0	0	pCi/L	0.13	0.13	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Plutonium-239/240	PU-239/240	1	0	0	0	pCi/L	0.029	0.029	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Strontium-90	10098-97-2	6	6	0	100	pCi/L	--	--	212	5,000	1.1	5,000	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-184	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	8.1	8.1	0	8.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Tritium	10028-17-8	6	6	0	100	pCi/L	--	--	1,000	12,000	0.50	10,191	95% Student's-t UCL	--
199-N-184	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.76	0.76	0	0.76	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-184	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.50	0.50	0	0.50	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	0.52	0.52	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Acetone	67-64-1	1	1	0	100	ug/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-185	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Aldrin	309-00-2	1	0	1	0	ug/L	0.010	0.010	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aldrin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	19	21	0.072	21	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.020	0.020	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	0.60	1.7	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	1.3	2.0	0.28	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	23	35	0.13	31	95% Student's-t UCL	--
199-N-185	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	-Hexachlorocyclohex	319-85-7	1	0	1	0	ug/L	0.013	0.013	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	11	17	0.30	17	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.088	0.088	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	1.6	1.6	0	1.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Chloromethane	74-87-3	1	1	0	100	ug/L	--	--	0.16	0.16	0	0.16	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-185	non-Rad	Chromium	7440-47-3	7	4	3	57	ug/L	1.0	5.0	2.8	6.0	0.31	5.1	95% KM (t) UCL	--
199-N-185	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Cobalt	7440-48-4	2	0	2	0	ug/L	0.10	0.22	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	0.20	0.20	1.8	1.8	0	1.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Cyanide	57-12-5	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cyanide was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	ibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	0.086	0.086	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Fluoride	16984-48-8	6	4	2	67	ug/L	46	46	52	120	0.39	102	95% KM (t) UCL	--
199-N-185	non-Rad	Hexavalent Chromiur	18540-29-9	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	ideno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Iron	7439-89-6	7	3	4	43	ug/L	20	40	34	142	0.83	80	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-185	non-Rad	Manganese	7439-96-5	7	3	4	43	ug/L	2.0	4.0	3.1	16	0.64	10	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-185	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Methanol	67-56-1	1	0	1	0	ug/L	500	500	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Molybdenum	7439-98-7	5	4	1	80	ug/L	4.0	4.0	1.3	3.2	0.34	3.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-185	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-185	non-Rad	Nickel	7440-02-0	7	0	7	0	ug/L	0.80	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-185	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	25,800	38,500	0.15	35,932	95% Student's-t UCL	--
199-N-185	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	125	131	163	163	0	163	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-185	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	1.6	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.10	0.82	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	209	369	0.17	329	95% Student's-t UCL	--
199-N-185	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.10	0.55	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	0.10	1.1	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	0.072	0.072	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Toxaphene	8001-35-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toxaphene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.0	1.0	0	1.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	non-Rad	Vanadium	7440-62-2	7	4	3	57	ug/L	4.4	10	4.0	9.4	0.43	7.0	95% KM (t) UCL	--
199-N-185	non-Rad	Zinc	7440-66-6	7	1	6	14	ug/L	3.3	9.3	7.4	7.4	0	7.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-185	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	7.8	7.8	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.095	0.095	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.024	0.024	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	3.9	13	0.44	11	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-185	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	9.0	9.0	0	9.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	7,100	11,500	0.17	11,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-185	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.34	0.34	0	0.34	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Uranium-235	15117-96-1	1	1	0	100	pCi/L	--	--	0.029	0.029	0	0.029	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-185	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.20	0.20	0	0.20	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-186	non-Rad	2-Butanone	78-93-3	14	0	14	0	ug/L	0.52	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-186	non-Rad	2-Propanol	67-63-0	2	2	0	100	ug/L	--	--	12	12	0	12	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-186	non-Rad	Acenaphthene	83-32-9	14	0	14	0	ug/L	0.033	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-186	non-Rad	Acetone	67-64-1	14	5	9	36	ug/L	0.34	5.0	0.81	1.7	0.32	1.3	95% KM (t) UCL	--
199-N-186	non-Rad	Acetophenone	98-86-2	14	1	13	7.1	ug/L	0.90	2.9	0.99	0.99	0	0.99	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetophenone was not processed!
199-N-186	non-Rad	Aldrin	309-00-2	14	0	14	0	ug/L	0.0067	0.020	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
199-N-186	non-Rad	Aluminum	7429-90-5	14	9	5	64	ug/L	10	20	6.6	240	1.4	113	95% KM (Chebyshev) UCL	--
199-N-186	non-Rad	Anthracene	120-12-7	14	0	14	0	ug/L	0.019	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-186	non-Rad	Antimony	7440-36-0	14	0	14	0	ug/L	0.30	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-186	non-Rad	Arsenic	7440-38-2	14	8	6	57	ug/L	0.40	1.7	0.42	1.7	0.46	0.94	95% KM (t) UCL	--
199-N-186	non-Rad	Barium	7440-39-3	14	14	0	100	ug/L	--	--	70	124	0.15	107	95% Student's-t UCL	--
199-N-186	non-Rad	Benzo(a)anthracene	56-55-3	14	0	14	0	ug/L	0.029	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-186	non-Rad	Benzo(a)pyrene	50-32-8	14	0	14	0	ug/L	0.050	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-186	non-Rad	Beryllium	7440-41-7	14	0	14	0	ug/L	0.10	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-186	non-Rad	-Hexachlorocyclohex	319-85-7	14	0	14	0	ug/L	0.0067	0.020	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed!
199-N-186	non-Rad	i(2-ethylhexyl) phthal	117-81-7	14	0	14	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bis(2-ethylhexyl) phthalate was not processed!
199-N-186	non-Rad	Boron	7440-42-8	14	14	0	100	ug/L	--	--	12	23	0.13	20	95% Student's-t UCL	--
199-N-186	non-Rad	romodichloromethar	75-27-4	12	0	12	0	ug/L	0.088	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromodichloromethane was not processed!
199-N-186	non-Rad	Bromomethane	74-83-9	12	0	12	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-N-186	non-Rad	Butylbenzylphthalate	85-68-7	14	0	14	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Butylbenzylphthalate was not processed!
199-N-186	non-Rad	Cadmium	7440-43-9	14	0	14	0	ug/L	0.050	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-186	non-Rad	Carbon tetrachloride	56-23-5	14	0	14	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-186	non-Rad	Chloroform	67-66-3	14	8	6	57	ug/L	1.0	1.0	0.73	1.4	0.22	1.1	95% KM (t) UCL	--
199-N-186	non-Rad	Chloromethane	74-87-3	14	1	13	7.1	ug/L	0.077	2.0	0.082	0.082	0	0.082	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-N-186	non-Rad	Chromium	7440-47-3	14	14	0	100	ug/L	--	--	3.8	8.4	0.23	5.7	95% Student's-t UCL	--
199-N-186	non-Rad	Chrysene	218-01-9	14	0	14	0	ug/L	0.034	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-186	non-Rad	Cobalt	7440-48-4	14	5	9	36	ug/L	0.10	0.22	0.055	0.88	1.4	0.41	95% KM (Chebyshev) UCL	--
199-N-186	non-Rad	Copper	7440-50-8	14	14	0	100	ug/L	--	--	0.31	5.2	1.1	1.9	95% H-UCL	--
199-N-186	non-Rad	Cyanide	57-12-5	14	0	14	0	ug/L	1.5	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-186	non-Rad	›ibenz[a,h]anthracen	53-70-3	14	0	14	0	ug/L	0.044	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-186	non-Rad	Diethylphthalate	84-66-2	14	1	13	7.1	ug/L	0.90	2.9	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Diethylphthalate was not processed!
199-N-186	non-Rad	Ethylbenzene	100-41-4	14	0	14	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-186	non-Rad	Ethylene glycol	107-21-1	4	0	4	0	ug/L	2,100	3,000	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylene glycol was not processed!
199-N-186	non-Rad	Fluoranthene	206-44-0	14	0	14	0	ug/L	0.032	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-186	non-Rad	Fluorene	86-73-7	14	0	14	0	ug/L	0.030	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-186	non-Rad	Fluoride	16984-48-8	14	4	10	29	ug/L	46	66	28	85	0.39	50	95% KM (t) UCL	--
199-N-186	non-Rad	‹exavalent Chromiur	18540-29-9	13	9	4	69	ug/L	2.0	8.0	2.3	5.3	0.24	4.1	95% KM (t) UCL	--
199-N-186	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	14	0	14	0	ug/L	0.038	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-186	non-Rad	Iron	7439-89-6	14	7	7	50	ug/L	19	40	17	306	1.2	90	95% KM (t) UCL	--
199-N-186	non-Rad	Manganese	7439-96-5	14	13	1	93	ug/L	1.0	1.0	0.34	45	2.2	19	95% KM (Chebyshev) UCL	--
199-N-186	non-Rad	Mercury	7439-97-6	14	0	14	0	ug/L	0.050	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-N-186	non-Rad	Methanol	67-56-1	14	0	14	0	ug/L	100	2,000	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methanol was not processed!
199-N-186	non-Rad	Methylene chloride	75-09-2	14	2	12	14	ug/L	0.27	1.6	0.34	0.45	0.20	0.38	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-186	non-Rad	Molybdenum	7439-98-7	14	13	1	93	ug/L	1.0	1.0	0.49	3.2	0.56	1.8	95% KM (t) UCL	--
199-N-186	non-Rad	Naphthalene	91-20-3	14	0	14	0	ug/L	0.064	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-186	non-Rad	Nickel	7440-02-0	14	6	8	43	ug/L	4.0	5.0	0.22	2.9	0.87	2.0	95% KM (t) UCL	--
199-N-186	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	58,900	168,000	0.30	137,797	95% Student's-t UCL	--
199-N-186	non-Rad	Nitrite	14797-65-0	14	5	9	36	ug/L	9.9	250	190	437	0.36	184	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-186	non-Rad	Pyrene	129-00-0	14	0	14	0	ug/L	0.035	0.97	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-186	non-Rad	Selenium	7782-49-2	14	3	11	21	ug/L	1.0	2.0	1.1	2.0	0.28	1.6	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-186	non-Rad	Silver	7440-22-4	14	0	14	0	ug/L	0.050	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-186	non-Rad	Strontium	7440-24-6	14	14	0	100	ug/L	--	--	411	653	0.12	543	95% Student's-t UCL	--
199-N-186	non-Rad	Tetrachloroethene	127-18-4	14	4	10	29	ug/L	0.18	1.0	0.18	0.32	0.23	0.28	95% KM (t) UCL	--
199-N-186	non-Rad	Thallium	7440-28-0	14	1	13	7.1	ug/L	0.050	0.55	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-186	non-Rad	Tin	7440-31-5	14	4	10	29	ug/L	0.050	1.0	0.10	7.3	1.7	1.1	95% Hall's Bootstrap	--
199-N-186	non-Rad	Toluene	108-88-3	14	0	14	0	ug/L	0.070	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-186	non-Rad	Toxaphene	8001-35-2	14	0	14	0	ug/L	0.15	0.66	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toxaphene was not processed!
199-N-186	non-Rad	Tributyl phosphate	126-73-8	14	0	14	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tributyl phosphate was not processed!
199-N-186	non-Rad	Trichloroethene	79-01-6	14	0	14	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-186	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	3.5	6.6	0.24	5.8	95% Student's-t UCL	--
199-N-186	non-Rad	Vanadium	7440-62-2	13	3	10	23	ug/L	4.4	10	2.0	2.3	0.071	2.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-186	non-Rad	Zinc	7440-66-6	14	3	11	21	ug/L	3.5	8.3	5.0	7.1	0.18	4.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-186	Rad	Cesium-137	10045-97-3	14	0	14	0	pCi/L	1.7	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-186	Rad	Plutonium-238	13981-16-3	14	1	13	7.1	pCi/L	0.087	0.91	0.22	0.22	0	0.22	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-238 was not processed!
199-N-186	Rad	Plutonium-239/240	PU-239/240	14	1	13	7.1	pCi/L	0.059	0.87	0.038	0.038	0	0.038	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-239/240 was not processed!
199-N-186	Rad	Strontium-90	10098-97-2	15	15	0	100	pCi/L	--	--	193	810	0.44	481	95% Student's-t UCL	--
199-N-186	Rad	Technetium-99	14133-76-7	14	14	0	100	pCi/L	--	--	9.7	41	0.35	32	95% Student's-t UCL	--
199-N-186	Rad	Tritium	10028-17-8	15	15	0	100	pCi/L	--	--	12,300	41,000	0.31	33,116	95% Student's-t UCL	--
199-N-186	Rad	Uranium-233/234	U-233/234	13	13	0	100	pCi/L	--	--	1.3	4.4	0.40	2.4	95% Modified-t UCL	--
199-N-186	Rad	Uranium-235	15117-96-1	14	6	8	43	pCi/L	0.050	0.32	0.047	0.24	0.51	0.15	95% KM (t) UCL	--
199-N-186	Rad	Uranium-238	U-238	14	14	0	100	pCi/L	--	--	0.85	4.1	0.50	2.0	95% Modified-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-187	non-Rad	2-Butanone	78-93-3	13	0	13	0	ug/L	0.52	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-187	non-Rad	2-Propanol	67-63-0	2	0	2	0	ug/L	250	250	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-187	non-Rad	Acenaphthene	83-32-9	13	0	13	0	ug/L	0.033	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-187	non-Rad	Acetone	67-64-1	13	2	11	15	ug/L	0.34	5.0	0.65	3.0	0.91	2.6	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-187	non-Rad	Acetophenone	98-86-2	12	1	11	8.3	ug/L	0.90	2.9	0.94	0.94	0	0.94	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetophenone was not processed!
199-N-187	non-Rad	Aldrin	309-00-2	12	0	12	0	ug/L	0.0067	0.019	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
199-N-187	non-Rad	Aluminum	7429-90-5	13	6	7	46	ug/L	10	20	11	148	1.2	86	95% KM Bootstrap t UCL	--
199-N-187	non-Rad	Anthracene	120-12-7	13	1	12	7.7	ug/L	0.020	0.96	0.022	0.022	0	0.022	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-187	non-Rad	Antimony	7440-36-0	12	0	12	0	ug/L	0.30	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-187	non-Rad	Arsenic	7440-38-2	13	9	4	69	ug/L	1.2	1.7	0.45	1.7	0.48	1.00	95% KM (t) UCL	--
199-N-187	non-Rad	Barium	7440-39-3	13	13	0	100	ug/L	--	--	45	64	0.13	57	95% Student's-t UCL	--
199-N-187	non-Rad	Benzo(a)anthracene	56-55-3	13	0	13	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-187	non-Rad	Benzo(a)pyrene	50-32-8	13	0	13	0	ug/L	0.048	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-187	non-Rad	Beryllium	7440-41-7	13	0	13	0	ug/L	0.10	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-187	non-Rad	-Hexachlorocyclohex	319-85-7	12	0	12	0	ug/L	0.0067	0.019	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed!
199-N-187	non-Rad	i(2-ethylhexyl) phthal	117-81-7	12	0	12	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bis(2-ethylhexyl) phthalate was not processed!
199-N-187	non-Rad	Boron	7440-42-8	13	13	0	100	ug/L	--	--	16	28	0.16	21	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-187	non-Rad	romodichloromethar	75-27-4	11	0	11	0	ug/L	0.088	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromodichloromethane was not processed!
199-N-187	non-Rad	Bromomethane	74-83-9	11	0	11	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-N-187	non-Rad	Butylbenzylphthalate	85-68-7	12	0	12	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Butylbenzylphthalate was not processed!
199-N-187	non-Rad	Cadmium	7440-43-9	13	0	13	0	ug/L	0.050	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-187	non-Rad	Carbon tetrachloride	56-23-5	13	0	13	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-187	non-Rad	Chloroform	67-66-3	13	9	4	69	ug/L	1.0	1.0	1.0	1.6	0.14	1.3	95% KM (t) UCL	--
199-N-187	non-Rad	Chloromethane	74-87-3	11	0	11	0	ug/L	0.077	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-N-187	non-Rad	Chromium	7440-47-3	13	13	0	100	ug/L	--	--	2.0	4.9	0.21	3.9	95% Student's-t UCL	--
199-N-187	non-Rad	Chrysene	218-01-9	13	0	13	0	ug/L	0.034	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-187	non-Rad	Cobalt	7440-48-4	13	4	9	31	ug/L	0.050	0.22	0.058	0.59	1.1	0.19	95% KM (t) UCL	--
199-N-187	non-Rad	Copper	7440-50-8	13	7	6	54	ug/L	0.20	0.68	0.19	0.88	0.59	0.45	95% KM (t) UCL	--
199-N-187	non-Rad	Cyanide	57-12-5	13	1	12	7.7	ug/L	1.7	4.0	5.2	5.2	0	5.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!
199-N-187	non-Rad	xibenz[a,h]anthracen	53-70-3	13	0	13	0	ug/L	0.044	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-187	non-Rad	Diethylphthalate	84-66-2	12	0	12	0	ug/L	0.90	2.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Diethylphthalate was not processed!
199-N-187	non-Rad	Ethylbenzene	100-41-4	13	0	13	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-187	non-Rad	Ethylene glycol	107-21-1	4	1	3	25	ug/L	2,100	3,000	6,060	6,060	0	6,060	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylene glycol was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-187	non-Rad	Fluoranthene	206-44-0	13	0	13	0	ug/L	0.032	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-187	non-Rad	Fluorene	86-73-7	13	0	13	0	ug/L	0.030	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-187	non-Rad	Fluoride	16984-48-8	14	5	9	36	ug/L	46	50	59	154	0.37	81	95% KM (t) UCL	--
199-N-187	non-Rad	Hexavalent Chromiur	18540-29-9	13	9	4	69	ug/L	2.0	8.0	2.6	4.0	0.15	3.4	95% KM (t) UCL	--
199-N-187	non-Rad	Indeno(1,2,3-cd)pyrer	193-39-5	13	0	13	0	ug/L	0.038	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-187	non-Rad	Iron	7439-89-6	13	2	11	15	ug/L	13	40	17	38	0.55	32	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-187	non-Rad	Manganese	7439-96-5	13	10	3	77	ug/L	0.20	1.0	0.20	4.1	1.2	2.0	95% KM Bootstrap t UCL	--
199-N-187	non-Rad	Mercury	7439-97-6	13	1	12	7.7	ug/L	0.050	0.10	0.073	0.073	0	0.073	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-N-187	non-Rad	Methanol	67-56-1	13	1	12	7.7	ug/L	100	2,000	120,000	120,000	0	120,000	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methanol was not processed!
199-N-187	non-Rad	Methylene chloride	75-09-2	13	2	11	15	ug/L	0.27	1.6	0.35	2.0	1.00	1.2	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-187	non-Rad	Molybdenum	7439-98-7	13	11	2	85	ug/L	1.0	1.0	0.50	3.6	0.77	1.9	95% KM Adjusted Gamma UCL	--
199-N-187	non-Rad	Naphthalene	91-20-3	13	0	13	0	ug/L	0.048	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-187	non-Rad	Nickel	7440-02-0	13	5	8	38	ug/L	0.20	5.0	0.24	1.4	0.46	1.2	95% KM (t) UCL	--
199-N-187	non-Rad	Nitrate	14797-55-8	14	14	0	100	ug/L	--	--	70,800	123,000	0.16	101,942	95% Student's-t UCL	--
199-N-187	non-Rad	Nitrite	14797-65-0	14	1	13	7.1	ug/L	20	250	157	157	0	157	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-187	non-Rad	Pyrene	129-00-0	13	0	13	0	ug/L	0.035	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-187	non-Rad	Selenium	7782-49-2	13	11	2	85	ug/L	2.0	2.0	1.9	3.0	0.14	2.4	95% KM (t) UCL	--
199-N-187	non-Rad	Silver	7440-22-4	13	1	12	7.7	ug/L	0.050	0.82	0.58	0.58	0	0.58	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-187	non-Rad	Strontium	7440-24-6	13	13	0	100	ug/L	--	--	314	414	0.087	379	95% Student's-t UCL	--
199-N-187	non-Rad	Tetrachloroethene	127-18-4	13	0	13	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-187	non-Rad	Thallium	7440-28-0	13	0	13	0	ug/L	0.050	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-187	non-Rad	Tin	7440-31-5	13	2	11	15	ug/L	0.050	1.1	0.12	0.31	0.64	0.26	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-187	non-Rad	Toluene	108-88-3	13	0	13	0	ug/L	0.070	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-187	non-Rad	Toxaphene	8001-35-2	12	0	12	0	ug/L	0.15	0.66	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toxaphene was not processed!
199-N-187	non-Rad	Tributyl phosphate	126-73-8	11	0	11	0	ug/L	0.90	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tributyl phosphate was not processed!
199-N-187	non-Rad	Trichloroethene	79-01-6	13	0	13	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-187	non-Rad	Uranium	7440-61-1	6	6	0	100	ug/L	--	--	1.8	2.5	0.13	2.4	95% Student's-t UCL	--
199-N-187	non-Rad	Vanadium	7440-62-2	12	4	8	33	ug/L	4.4	10	1.7	5.3	0.64	2.5	95% KM H-UCL	--
199-N-187	non-Rad	Zinc	7440-66-6	13	2	11	15	ug/L	2.0	9.3	6.8	10	0.28	4.8	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-187	Rad	Cesium-137	10045-97-3	13	0	13	0	pCi/L	5.0	33	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-187	Rad	Plutonium-238	13981-16-3	13	1	12	7.7	pCi/L	0.055	1.2	0.17	0.17	0	0.17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-238 was not processed!
199-N-187	Rad	Plutonium-239/240	PU-239/240	13	0	13	0	pCi/L	0.025	0.95	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-239/240 was not processed!
199-N-187	Rad	Strontium-90	10098-97-2	14	14	0	100	pCi/L	--	--	8,600	15,000	0.15	12,076	95% Student's-t UCL	--
199-N-187	Rad	Technetium-99	14133-76-7	13	11	2	85	pCi/L	11	14	13	41	0.34	28	95% KM (t) UCL	--
199-N-187	Rad	Tritium	10028-17-8	14	14	0	100	pCi/L	--	--	10,600	18,000	0.15	14,974	95% Student's-t UCL	--
199-N-187	Rad	Uranium-233/234	U-233/234	10	10	0	100	pCi/L	--	--	0.78	1.3	0.17	1.1	95% Student's-t UCL	--
199-N-187	Rad	Uranium-235	15117-96-1	13	2	11	15	pCi/L	0.073	0.94	0.076	0.13	0.37	0.098	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-187	Rad	Uranium-238	U-238	13	12	1	92	pCi/L	1.4	1.4	0.62	1.3	0.25	0.99	95% KM (t) UCL	--
199-N-188	non-Rad	2-Butanone	78-93-3	14	0	14	0	ug/L	0.52	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-188	non-Rad	2-Propanol	67-63-0	2	1	1	50	ug/L	1.0	1.0	18	18	0	18	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-188	non-Rad	Acenaphthene	83-32-9	14	0	14	0	ug/L	0.033	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-188	non-Rad	Acetone	67-64-1	14	2	12	14	ug/L	0.34	5.0	0.62	0.63	0.011	0.57	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-188	non-Rad	Acetophenone	98-86-2	14	0	14	0	ug/L	0.90	2.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetophenone was not processed!
199-N-188	non-Rad	Aldrin	309-00-2	14	0	14	0	ug/L	0.0063	0.020	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
199-N-188	non-Rad	Aluminum	7429-90-5	15	8	7	53	ug/L	10	20	12	147	0.82	55	95% KM (t) UCL	--
199-N-188	non-Rad	Anthracene	120-12-7	14	0	14	0	ug/L	0.019	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-188	non-Rad	Antimony	7440-36-0	15	0	15	0	ug/L	0.30	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-188	non-Rad	Arsenic	7440-38-2	15	15	0	100	ug/L	--	--	2.0	3.6	0.21	3.0	95% Student's-t UCL	--
199-N-188	non-Rad	Barium	7440-39-3	15	15	0	100	ug/L	--	--	34	49	0.11	42	95% Student's-t UCL	--
199-N-188	non-Rad	Benzo(a)anthracene	56-55-3	14	0	14	0	ug/L	0.029	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-188	non-Rad	Benzo(a)pyrene	50-32-8	14	0	14	0	ug/L	0.050	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-188	non-Rad	Beryllium	7440-41-7	15	0	15	0	ug/L	0.080	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-188	non-Rad	-Hexachlorocyclohex	319-85-7	14	0	14	0	ug/L	0.0063	0.020	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed!
199-N-188	non-Rad	i(2-ethylhexyl) phthal	117-81-7	14	1	13	7.1	ug/L	0.90	2.8	3.5	3.5	0	3.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bis(2-ethylhexyl) phthalate was not processed!
199-N-188	non-Rad	Boron	7440-42-8	15	15	0	100	ug/L	--	--	19	64	0.40	32	95% Modified-t UCL	--
199-N-188	non-Rad	romodichloromethar	75-27-4	12	3	9	25	ug/L	0.088	1.0	0.12	0.17	0.19	0.14	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-188	non-Rad	Bromomethane	74-83-9	12	0	12	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
199-N-188	non-Rad	Butylbenzylphthalate	85-68-7	14	0	14	0	ug/L	0.90	2.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Butylbenzylphthalate was not processed!
199-N-188	non-Rad	Cadmium	7440-43-9	15	0	15	0	ug/L	0.050	0.27	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-188	non-Rad	Carbon tetrachloride	56-23-5	14	0	14	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-188	non-Rad	Chloroform	67-66-3	14	14	0	100	ug/L	--	--	1.6	4.5	0.20	3.6	95% Student's-t UCL	--
199-N-188	non-Rad	Chloromethane	74-87-3	14	0	14	0	ug/L	0.077	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloromethane was not processed!
199-N-188	non-Rad	Chromium	7440-47-3	15	15	0	100	ug/L	--	--	9.6	15	0.12	12	95% Student's-t UCL	--
199-N-188	non-Rad	Chrysene	218-01-9	14	0	14	0	ug/L	0.034	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-188	non-Rad	Cobalt	7440-48-4	15	4	11	27	ug/L	0.10	0.22	0.056	1.1	1.1	0.30	95% KM (t) UCL	--
199-N-188	non-Rad	Copper	7440-50-8	15	11	4	73	ug/L	0.20	0.20	0.25	6.4	1.4	1.6	95% KM H-UCL	--
199-N-188	non-Rad	Cyanide	57-12-5	14	0	14	0	ug/L	1.5	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!
199-N-188	non-Rad	Dibenz[a,h]anthracene	53-70-3	14	0	14	0	ug/L	0.043	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-188	non-Rad	Diethylphthalate	84-66-2	14	0	14	0	ug/L	0.90	2.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Diethylphthalate was not processed!
199-N-188	non-Rad	Ethylbenzene	100-41-4	14	0	14	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-188	non-Rad	Ethylene glycol	107-21-1	4	0	4	0	ug/L	2,100	3,000	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylene glycol was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-188	non-Rad	Fluoranthene	206-44-0	14	0	14	0	ug/L	0.032	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-188	non-Rad	Fluorene	86-73-7	14	1	13	7.1	ug/L	0.030	0.94	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-188	non-Rad	Fluoride	16984-48-8	15	7	8	47	ug/L	46	69	67	166	0.28	96	95% KM (t) UCL	--
199-N-188	non-Rad	Hexavalent Chromiur	18540-29-9	14	14	0	100	ug/L	--	--	5.1	13	0.20	11	95% Student's-t UCL	--
199-N-188	non-Rad	ndeno(1,2,3-cd)pyrer	193-39-5	14	0	14	0	ug/L	0.038	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-188	non-Rad	Iron	7439-89-6	15	5	10	33	ug/L	13	40	35	165	0.70	54	95% KM (t) UCL	--
199-N-188	non-Rad	Manganese	7439-96-5	15	14	1	93	ug/L	1.0	1.0	0.42	23	1.7	9.5	djusted KM-UCL (use when k<=1 and 15 < n	--
199-N-188	non-Rad	Mercury	7439-97-6	14	0	14	0	ug/L	0.050	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
199-N-188	non-Rad	Methanol	67-56-1	14	1	13	7.1	ug/L	100	2,000	686	686	0	686	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methanol was not processed!
199-N-188	non-Rad	Methylene chloride	75-09-2	14	1	13	7.1	ug/L	0.27	1.6	0.48	0.48	0	0.48	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-188	non-Rad	Molybdenum	7439-98-7	15	15	0	100	ug/L	--	--	0.87	3.1	0.35	1.9	95% Student's-t UCL	--
199-N-188	non-Rad	Naphthalene	91-20-3	14	0	14	0	ug/L	0.064	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-188	non-Rad	Nickel	7440-02-0	15	7	8	47	ug/L	0.50	5.0	0.70	5.4	0.90	2.1	95% KM (t) UCL	--
199-N-188	non-Rad	Nitrate	14797-55-8	15	15	0	100	ug/L	--	--	19,500	36,400	0.17	29,157	95% Student's-t UCL	--
199-N-188	non-Rad	Nitrite	14797-65-0	15	2	13	13	ug/L	9.9	250	165	214	0.18	80	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-188	non-Rad	Pyrene	129-00-0	14	0	14	0	ug/L	0.035	0.94	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-188	non-Rad	Selenium	7782-49-2	15	1	14	6.7	ug/L	1.0	2.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-188	non-Rad	Silver	7440-22-4	15	1	14	6.7	ug/L	0.050	0.82	0.41	0.41	0	0.41	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-188	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	273	385	0.087	320	95% Student's-t UCL	--
199-N-188	non-Rad	Tetrachloroethene	127-18-4	14	0	14	0	ug/L	0.18	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-188	non-Rad	Thallium	7440-28-0	15	1	14	6.7	ug/L	0.050	0.55	0.62	0.62	0	0.62	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-188	non-Rad	Tin	7440-31-5	15	2	13	13	ug/L	0.050	1.1	0.13	0.82	1.0	0.54	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-188	non-Rad	Toluene	108-88-3	14	0	14	0	ug/L	0.070	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-188	non-Rad	Toxaphene	8001-35-2	14	1	13	7.1	ug/L	0.14	0.66	0.27	0.27	0	0.27	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toxaphene was not processed!
199-N-188	non-Rad	Tributyl phosphate	126-73-8	14	1	13	7.1	ug/L	0.90	2.8	2.9	2.9	0	2.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tributyl phosphate was not processed!
199-N-188	non-Rad	Trichloroethene	79-01-6	14	0	14	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-188	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	1.7	2.4	0.12	2.3	95% Student's-t UCL	--
199-N-188	non-Rad	Vanadium	7440-62-2	14	11	3	79	ug/L	5.0	10	5.9	11	0.19	8.5	95% KM (t) UCL	--
199-N-188	non-Rad	Zinc	7440-66-6	15	1	14	6.7	ug/L	2.0	8.3	6.9	6.9	0	6.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-188	Rad	Cesium-137	10045-97-3	14	0	14	0	pCi/L	2.1	15	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-188	Rad	Plutonium-238	13981-16-3	14	0	14	0	pCi/L	0.059	0.42	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-238 was not processed!
199-N-188	Rad	Plutonium-239/240	PU-239/240	14	1	13	7.1	pCi/L	0.048	0.54	0.033	0.033	0	0.033	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Plutonium-239/240 was not processed!
199-N-188	Rad	Strontium-90	10098-97-2	15	15	0	100	pCi/L	--	--	1,460	3,400	0.26	2,379	95% Student's-t UCL	--
199-N-188	Rad	Technetium-99	14133-76-7	14	3	11	21	pCi/L	6.4	9.9	7.6	19	0.43	9.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-188	Rad	Tritium	10028-17-8	15	15	0	100	pCi/L	--	--	5,560	11,000	0.18	9,313	95% Student's-t UCL	--
199-N-188	Rad	Uranium-233/234	U-233/234	13	13	0	100	pCi/L	--	--	0.55	1.6	0.30	1.2	95% Student's-t UCL	--
199-N-188	Rad	Uranium-235	15117-96-1	14	6	8	43	pCi/L	0.020	0.59	0.065	0.22	0.43	0.14	95% KM (t) UCL	--
199-N-188	Rad	Uranium-238	U-238	14	14	0	100	pCi/L	--	--	0.52	1.2	0.23	0.83	95% Student's-t UCL	--
199-N-189	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	0.52	0.52	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Acetone	67-64-1	1	1	0	100	ug/L	--	--	4.3	4.3	0	4.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-189	non-Rad	Aldrin	309-00-2	1	0	1	0	ug/L	0.010	0.010	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aldrin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	25	26	0.025	26	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Anthracene	120-12-7	1	1	0	100	ug/L	--	--	0.026	0.026	0	0.026	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	0.60	1.7	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	5.8	7.2	0.15	7.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	27	34	0.090	33	95% Student's-t UCL	--
199-N-189	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	-Hexachlorocyclohex	319-85-7	1	0	1	0	ug/L	0.013	0.013	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	7.2	7.2	6.9	6.9	0	6.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.088	0.088	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	2.0	2.0	0	2.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.077	0.077	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	43	55	0.089	52	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-189	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Cobalt	7440-48-4	2	0	2	0	ug/L	0.10	0.22	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	0.20	0.20	1.8	1.8	0	1.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Cyanide	57-12-5	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cyanide was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	ibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	0.086	0.086	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Fluoride	16984-48-8	5	5	0	100	ug/L	--	--	213	360	0.18	360	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-189	non-Rad	Hexavalent Chromiur	18540-29-9	5	5	0	100	ug/L	--	--	40	50	0.082	49	95% Student's-t UCL	--
199-N-189	non-Rad	ndeno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Iron	7439-89-6	5	3	2	60	ug/L	20	30	22	52	0.53	42	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-189	non-Rad	Manganese	7439-96-5	5	2	3	40	ug/L	2.0	4.0	2.5	5.9	0.57	5.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-189	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Methanol	67-56-1	1	0	1	0	ug/L	500	500	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	9.2	9.3	0.0099	9.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Nickel	7440-02-0	5	1	4	20	ug/L	1.5	5.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-189	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	6,240	9,920	0.16	9,540	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-189	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	250	157	157	0	157	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-189	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	1.6	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.10	0.82	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	192	259	0.12	241	95% Student's-t UCL	--
199-N-189	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.10	0.55	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	0.10	1.1	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	0.072	0.072	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Toxaphene	8001-35-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toxaphene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	2.3	2.3	0	2.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	non-Rad	Vanadium	7440-62-2	5	5	0	100	ug/L	--	--	16	23	0.14	22	95% Student's-t UCL	--
199-N-189	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-189	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	6.4	6.4	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.12	0.12	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.061	0.061	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Strontium-90	10098-97-2	5	0	5	0	pCi/L	0.49	1.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-189	Rad	Technetium-99	14133-76-7	1	0	1	0	pCi/L	5.9	5.9	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	1,870	3,800	0.26	3,774	95% Student's-t UCL	--
199-N-189	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-189	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.72	0.72	0	0.72	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-19	non-Rad	2-Butanone	78-93-3	5	0	5	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-19	non-Rad	Acenaphthene	83-32-9	7	0	7	0	ug/L	0.029	0.62	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-19	non-Rad	Acetone	67-64-1	5	0	5	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-19	non-Rad	Aluminum	7429-90-5	5	4	1	80	ug/L	15	15	40	81	0.33	71	95% KM (t) UCL	--
199-N-19	non-Rad	Anthracene	120-12-7	7	0	7	0	ug/L	0.019	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-19	non-Rad	Antimony	7440-36-0	5	0	5	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-19	non-Rad	Arsenic	7440-38-2	5	4	1	80	ug/L	1.7	1.7	2.3	2.3	0.013	2.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-19	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	59	79	0.097	72	95% Student's-t UCL	--
199-N-19	non-Rad	Benzo(a)anthracene	56-55-3	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-19	non-Rad	Benzo(a)pyrene	50-32-8	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-19	non-Rad	Beryllium	7440-41-7	5	0	5	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-19	non-Rad	Boron	7440-42-8	5	5	0	100	ug/L	--	--	25	32	0.095	32	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-19	non-Rad	Cadmium	7440-43-9	5	0	5	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-19	non-Rad	Carbon tetrachloride	56-23-5	5	0	5	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-19	non-Rad	Chloroform	67-66-3	5	5	0	100	ug/L	--	--	1.5	2.0	0.16	2.0	95% Student's-t UCL	--
199-N-19	non-Rad	Chromium	7440-47-3	7	7	0	100	ug/L	--	--	5.2	12	0.33	9.6	95% Student's-t UCL	--
199-N-19	non-Rad	Chrysene	218-01-9	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-19	non-Rad	Cobalt	7440-48-4	5	3	2	60	ug/L	0.10	0.10	0.11	0.27	0.40	0.24	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-19	non-Rad	Copper	7440-50-8	5	4	1	80	ug/L	0.35	0.35	0.37	1.3	0.62	0.97	95% KM (t) UCL	--
199-N-19	non-Rad	Dibenz[a,h]anthracene	53-70-3	7	1	6	14	ug/L	0.029	0.30	0.044	0.044	0	0.044	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-19	non-Rad	Ethylbenzene	100-41-4	5	0	5	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-19	non-Rad	Fluoranthene	206-44-0	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-19	non-Rad	Fluorene	86-73-7	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-19	non-Rad	Fluoride	16984-48-8	8	8	0	100	ug/L	--	--	64	174	0.24	174	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-19	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-19	non-Rad	Iron	7439-89-6	7	7	0	100	ug/L	--	--	90	329	0.41	251	95% Student's-t UCL	--
199-N-19	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	5.2	5.2	0	5.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-19	non-Rad	Manganese	7439-96-5	7	7	0	100	ug/L	--	--	11	34	0.32	26	95% Student's-t UCL	--
199-N-19	non-Rad	Methylene chloride	75-09-2	5	1	4	20	ug/L	1.6	1.6	3.6	3.6	0	3.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-19	non-Rad	Molybdenum	7439-98-7	5	5	0	100	ug/L	--	--	1.1	1.5	0.11	1.4	95% Student's-t UCL	--
199-N-19	non-Rad	Naphthalene	91-20-3	7	1	6	14	ug/L	0.029	0.33	0.030	0.030	0	0.030	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-19	non-Rad	Nickel	7440-02-0	7	5	2	71	ug/L	4.0	5.0	1.2	3.9	0.47	3.4	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-19	non-Rad	Nitrate	14797-55-8	8	8	0	100	ug/L	--	--	62,000	91,200	0.15	84,680	95% Student's-t UCL	--
199-N-19	non-Rad	Nitrite	14797-65-0	8	1	7	13	ug/L	125	131	244	244	0	244	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-19	non-Rad	Pyrene	129-00-0	7	0	7	0	ug/L	0.029	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-19	non-Rad	Selenium	7782-49-2	5	3	2	60	ug/L	1.5	1.5	1.5	1.9	0.11	1.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-19	non-Rad	Silver	7440-22-4	5	0	5	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-19	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	388	496	0.076	477	95% Student's-t UCL	--
199-N-19	non-Rad	Tetrachloroethene	127-18-4	5	0	5	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-19	non-Rad	Thallium	7440-28-0	5	1	4	20	ug/L	0.45	0.45	0.85	0.85	0	0.85	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-19	non-Rad	Tin	7440-31-5	5	0	5	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-19	non-Rad	Toluene	108-88-3	5	0	5	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-19	non-Rad	Trichloroethene	79-01-6	5	0	5	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-19	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	5.2	6.4	0.081	6.0	95% Student's-t UCL	--
199-N-19	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	10	10	4.1	6.1	0.15	5.2	95% KM (t) UCL	--
199-N-19	non-Rad	Zinc	7440-66-6	7	2	5	29	ug/L	3.5	5.0	5.2	6.4	0.15	5.3	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-19	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	16	23	0.16	23	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-19	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	868	868	0	868	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	17	17	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-2	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.2	1.2	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	49	79	0.23	75	95% Student's-t UCL	--
199-N-2	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	22	22	0	22	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Chromium	7440-47-3	5	3	2	60	ug/L	5.0	5.0	3.4	6.3	0.33	5.6	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-2	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.87	0.87	0	0.87	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Fluoride	16984-48-8	5	2	3	40	ug/L	46	66	79	83	0.035	83	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-2	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	102	572	0.77	433	95% Student's-t UCL	--
199-N-2	non-Rad	Manganese	7439-96-5	5	4	1	80	ug/L	4.0	4.0	6.0	17	0.51	14	95% KM (t) UCL	--
199-N-2	non-Rad	Molybdenum	7439-98-7	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Nickel	7440-02-0	5	0	5	0	ug/L	0.80	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-2	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	50,500	173,000	0.58	150,923	95% Student's-t UCL	--
199-N-2	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	250	182	182	0	182	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-2	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	252	491	0.32	460	95% Student's-t UCL	--
199-N-2	non-Rad	Thallium	7440-28-0	1	1	0	100	ug/L	--	--	0.60	0.60	0	0.60	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.3	2.8	0.14	2.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	non-Rad	Vanadium	7440-62-2	5	2	3	40	ug/L	4.4	10	1.6	2.2	0.23	2.2	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-2	non-Rad	Zinc	7440-66-6	5	5	0	100	ug/L	--	--	14	52	0.63	40	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-2	Rad	Carbon-14	14762-75-5	1	1	0	100	pCi/L	--	--	357	357	0	357	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	2.8	2.8	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.96	0.96	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	164	3,300	1.1	2,338	95% Student's-t UCL	--
199-N-2	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	19	19	0	19	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	3,590	5,700	0.16	5,700	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-2	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.95	0.95	0	0.95	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.47	0.47	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-2	Rad	Uranium-238	U-238	1	0	1	0	pCi/L	0.47	0.47	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	103	103	0	103	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	10	10	0	10	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	149	149	0	149	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Iron	7439-89-6	1	0	1	0	ug/L	30	30	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Manganese	7439-96-5	1	1	0	100	ug/L	--	--	34	34	0	34	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Molybdenum	7439-98-7	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Nickel	7440-02-0	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	31,000	31,000	0	31,000	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Nitrite	14797-65-0	1	0	1	0	ug/L	125	125	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	297	297	0	297	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-200	non-Rad	Vanadium	7440-62-2	1	1	0	100	ug/L	--	--	1.8	1.8	0	1.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	non-Rad	Zinc	7440-66-6	1	0	1	0	ug/L	3.3	3.3	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-200	Rad	Strontium-90	10098-97-2	1	1	0	100	pCi/L	--	--	23	23	0	23	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-201	non-Rad	Aluminum	7429-90-5	2	0	2	0	ug/L	17	17	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-201	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	88	183	0.36	183	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	non-Rad	Chromium	7440-47-3	3	1	2	33	ug/L	3.4	3.4	3.9	3.9	0	3.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-201	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	100	116	0.074	116	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	non-Rad	Iron	7439-89-6	3	1	2	33	ug/L	13	13	1,610	1,610	0	1,610	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-201	non-Rad	Manganese	7439-96-5	3	3	0	100	ug/L	--	--	1,350	1,780	0.16	1,780	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	1.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-201	non-Rad	Nickel	7440-02-0	3	3	0	100	ug/L	--	--	3.0	6.1	0.34	6.1	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	non-Rad	Nitrate	14797-55-8	3	2	1	67	ug/L	18	18	21,400	38,500	0.40	38,500	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-201	non-Rad	Nitrite	14797-65-0	3	2	1	67	ug/L	9.9	9.9	168	345	0.49	345	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-201	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	356	823	0.39	823	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	non-Rad	Vanadium	7440-62-2	3	1	2	33	ug/L	4.4	4.4	6.6	6.6	0	6.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-201	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	41	91	0.37	91	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-201	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	8.4	20	0.40	20	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-21	non-Rad	2-Butanone	78-93-3	2	0	2	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Acenaphthene	83-32-9	5	0	5	0	ug/L	0.027	0.62	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-21	non-Rad	Acetone	67-64-1	2	0	2	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Anthracene	120-12-7	5	0	5	0	ug/L	0.019	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-21	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	4.9	4.9	0	4.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	39	61	0.20	59	95% Student's-t UCL	--
199-N-21	non-Rad	Benzo(a)anthracene	56-55-3	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-21	non-Rad	Benzo(a)pyrene	50-32-8	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-21	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	24	24	0	24	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Carbon tetrachloride	56-23-5	2	0	2	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Chloroform	67-66-3	2	2	0	100	ug/L	--	--	3.7	4.5	0.14	4.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	4.6	8.4	0.29	7.9	95% Student's-t UCL	--
199-N-21	non-Rad	Chrysene	218-01-9	5	1	4	20	ug/L	0.027	0.28	0.055	0.055	0	0.055	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-21	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Dibenz[a,h]anthracene	53-70-3	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-21	non-Rad	Ethylbenzene	100-41-4	2	0	2	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Fluoranthene	206-44-0	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-21	non-Rad	Fluorene	86-73-7	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-21	non-Rad	Fluoride	16984-48-8	5	5	0	100	ug/L	--	--	222	463	0.27	463	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-21	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-21	non-Rad	Iron	7439-89-6	4	3	1	75	ug/L	30	30	23	95	0.61	93	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-21	non-Rad	Manganese	7439-96-5	4	3	1	75	ug/L	4.0	4.0	2.5	11	0.72	10	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-21	non-Rad	Methylene chloride	75-09-2	2	2	0	100	ug/L	--	--	1.7	2.0	0.088	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	6.2	6.2	0	6.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Naphthalene	91-20-3	5	0	5	0	ug/L	0.027	0.33	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-21	non-Rad	Nickel	7440-02-0	4	0	4	0	ug/L	0.50	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-21	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	33,500	85,900	0.44	70,755	95% Student's-t UCL	--
199-N-21	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	131	179	179	0	179	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-21	non-Rad	Pyrene	129-00-0	5	0	5	0	ug/L	0.027	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-21	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	223	390	0.26	383	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-21	non-Rad	Tetrachloroethene	127-18-4	2	0	2	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Toluene	108-88-3	2	0	2	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Trichloroethene	79-01-6	2	0	2	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	2.7	2.7	0	2.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-21	non-Rad	Vanadium	7440-62-2	4	3	1	75	ug/L	10	10	11	12	0.022	12	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-21	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	3.3	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-21	Rad	Strontium-90	10098-97-2	5	2	3	40	pCi/L	0.77	1.5	1.2	1.8	0.28	1.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-21	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	1,110	1,110	0	1,110	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	26	59	0.55	59	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Chromium	7440-47-3	2	2	0	100	ug/L	--	--	1.7	14	1.1	14	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Fluoride	16984-48-8	2	1	1	50	ug/L	50	50	195	195	0	195	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	47	117	0.60	117	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	2.0	2.0	4.3	4.3	0	4.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	4.1	5.2	0.17	5.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Nickel	7440-02-0	2	0	2	0	ug/L	1.5	10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	3,110	34,700	1.2	34,700	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-210	non-Rad	Nitrite	14797-65-0	2	0	2	0	ug/L	125	131	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	63	106	0.36	106	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Vanadium	7440-62-2	2	2	0	100	ug/L	--	--	7.1	8.8	0.15	8.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	non-Rad	Zinc	7440-66-6	2	1	1	50	ug/L	3.3	3.3	51	51	0	51	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-210	Rad	Strontium-90	10098-97-2	2	2	0	100	pCi/L	--	--	7.2	13	0.40	13	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-268	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	22	206	1.1	206	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-268	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	55	66	0.091	66	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-268	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	3.4	4.9	0.26	4.9	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-268	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	67	90	0.21	90	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-268	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	40	40	86	233	0.65	233	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-268	non-Rad	Manganese	7439-96-5	3	1	2	33	ug/L	1.0	4.0	9.0	9.0	0	9.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-268	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-268	non-Rad	Nickel	7440-02-0	3	1	2	33	ug/L	2.6	10	3.1	3.1	0	3.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-268	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	63,700	84,100	0.15	84,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-268	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-268	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	278	334	0.10	334	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-268	non-Rad	Vanadium	7440-62-2	3	0	3	0	ug/L	4.4	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-268	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	5.5	13	0.39	13	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-268	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	1,500	1,720	0.077	1,720	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-269	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	55	106	0.45	106	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-269	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	41	70	0.26	70	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-269	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	2.2	2.5	0.11	2.5	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-269	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	70	91	0.18	91	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-269	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	34	126	0.55	126	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-269	non-Rad	Manganese	7439-96-5	3	2	1	67	ug/L	2.0	2.0	2.4	7.4	0.71	7.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-269	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-269	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-269	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	37,400	79,700	0.37	79,700	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-269	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-269	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	160	259	0.23	259	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-269	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	5.0	5.0	1.9	2.2	0.11	2.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-269	non-Rad	Zinc	7440-66-6	3	2	1	67	ug/L	3.3	3.3	12	13	0.067	13	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-269	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	1,100	2,450	0.38	2,450	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-27	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	33	33	0	33	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	4.1	4.1	0	4.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	37	45	0.100	45	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-27	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	14	14	0	14	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-27	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	12	25	0.34	24	95% Student's-t UCL	--
199-N-27	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.68	0.68	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	140	200	0.16	200	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-27	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	38	57	0.17	57	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-27	non-Rad	Manganese	7439-96-5	4	2	2	50	ug/L	2.0	4.0	2.3	4.5	0.46	4.5	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-27	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	2.9	2.9	0	2.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Nickel	7440-02-0	4	0	4	0	ug/L	0.80	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-27	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	25,200	53,600	0.39	44,280	95% Modified-t UCL	--
199-N-27	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	250	130	130	0	130	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-27	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	295	363	0.11	363	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-27	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	3.6	3.6	0	3.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-27	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	11	14	0.098	14	95% Student's-t UCL	--
199-N-27	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-27	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	2.9	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-27	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	126	200	0.23	176	95% Modified-t UCL	--
199-N-27	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	5,040	7,500	0.17	6,761	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-28	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	28	28	0	28	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	4.6	4.6	0	4.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	26	27	0.022	27	95% Student's-t UCL	--
199-N-28	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	24	24	0	24	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	8.2	13	0.18	13	95% Student's-t UCL	--
199-N-28	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.62	0.62	0	0.62	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	88	140	0.24	136	95% KM (t) UCL	--
199-N-28	non-Rad	Iron	7439-89-6	5	4	1	80	ug/L	30	30	26	273	1.1	195	95% KM (t) UCL	--
199-N-28	non-Rad	Manganese	7439-96-5	5	1	4	20	ug/L	2.0	4.0	3.9	3.9	0	3.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-28	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.3	1.3	0	1.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Nickel	7440-02-0	5	2	3	40	ug/L	1.5	5.0	2.8	5.7	0.48	5.7	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-28	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	35,800	48,700	0.15	47,949	95% Student's-t UCL	--
199-N-28	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-28	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	281	316	0.049	316	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-28	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	1.4	1.6	0.11	1.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-28	non-Rad	Vanadium	7440-62-2	5	5	0	100	ug/L	--	--	13	16	0.091	15	95% Student's-t UCL	--
199-N-28	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.3	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-28	Rad	Carbon-14	14762-75-5	1	1	0	100	pCi/L	--	--	257	257	0	257	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Cesium-137	10045-97-3	1	0	1	0	pCi/L	4.7	4.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cesium-137 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	24	35	0.14	35	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-28	Rad	Technetium-99	14133-76-7	1	0	1	0	pCi/L	40	40	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	7,740	12,000	0.16	11,371	95% Student's-t UCL	--
199-N-28	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	0.71	0.71	0	0.71	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.072	0.072	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-28	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	0.44	0.44	0	0.44	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-280	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	24	27	0.085	27	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-280	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	40	46	0.074	46	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-280	non-Rad	Chromium	7440-47-3	3	1	2	33	ug/L	3.4	5.0	4.2	4.2	0	4.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-280	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	80	85	0.043	85	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-280	non-Rad	Iron	7439-89-6	3	0	3	0	ug/L	13	40	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-280	non-Rad	Manganese	7439-96-5	3	0	3	0	ug/L	1.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-280	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-280	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	2.6	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-280	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	33,500	40,200	0.093	40,200	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-280	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-280	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	157	183	0.077	183	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-280	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	5.0	5.0	4.4	6.8	0.30	6.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-280	non-Rad	Zinc	7440-66-6	3	1	2	33	ug/L	5.0	8.3	12	12	0	12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-280	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	1,600	1,860	0.080	1,860	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-281	non-Rad	Aluminum	7429-90-5	2	1	1	50	ug/L	15	15	36	36	0	36	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-281	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	36	48	0.17	48	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-281	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	2.3	3.3	0.25	3.3	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-281	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	83	87	0.033	87	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-281	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	30	30	139	150	0.054	150	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-281	non-Rad	Manganese	7439-96-5	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-281	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-281	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-281	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	23,900	40,700	0.33	40,700	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-281	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-281	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	131	160	0.11	160	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-281	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	5.0	5.0	1.7	2.3	0.20	2.3	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-281	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	4.8	27	0.68	27	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-281	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	1,600	2,180	0.18	2,180	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-297	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	33	91	0.66	91	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-297	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	20	41	0.35	41	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-297	non-Rad	Chromium	7440-47-3	3	1	2	33	ug/L	3.4	5.0	4.4	4.4	0	4.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-297	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	68	127	0.31	127	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-297	non-Rad	Iron	7439-89-6	3	1	2	33	ug/L	13	40	35	35	0	35	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-297	non-Rad	Manganese	7439-96-5	3	1	2	33	ug/L	1.0	4.0	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-297	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-297	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	2.6	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-297	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	4,360	43,400	0.87	43,400	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-297	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-297	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	85	181	0.38	181	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-297	non-Rad	Vanadium	7440-62-2	3	1	2	33	ug/L	4.4	5.0	5.7	5.7	0	5.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-297	non-Rad	Zinc	7440-66-6	3	2	1	67	ug/L	8.3	8.3	6.4	20	0.73	20	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-297	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	280	1,230	0.63	1,230	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-298	non-Rad	Aluminum	7429-90-5	2	1	1	50	ug/L	15	15	76	76	0	76	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-298	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	19	39	0.40	39	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-298	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	1.9	2.7	0.22	2.7	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-298	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	100	101	0.0070	101	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-298	non-Rad	Iron	7439-89-6	3	1	2	33	ug/L	30	40	90	90	0	90	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-298	non-Rad	Manganese	7439-96-5	3	1	2	33	ug/L	2.0	4.0	3.0	3.0	0	3.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-298	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-298	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-298	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	11,300	53,100	0.88	53,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-298	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-298	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	107	189	0.30	189	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-298	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	5.0	5.0	1.5	1.6	0.036	1.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-298	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	3.6	8.4	0.45	8.4	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-298	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	926	1,530	0.29	1,530	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-3	non-Rad	2-Butanone	78-93-3	7	1	6	14	ug/L	0.52	3.0	0.84	0.84	0	0.84	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-3	non-Rad	Acenaphthene	83-32-9	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-3	non-Rad	Acetone	67-64-1	7	2	5	29	ug/L	0.34	3.0	0.88	3.1	0.78	3.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-3	non-Rad	Aluminum	7429-90-5	7	2	5	29	ug/L	15	17	49	69	0.23	53	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-3	non-Rad	Anthracene	120-12-7	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-3	non-Rad	Antimony	7440-36-0	7	1	6	14	ug/L	1.0	1.7	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-3	non-Rad	Arsenic	7440-38-2	7	2	5	29	ug/L	1.2	1.7	0.40	1.8	0.90	1.8	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-3	non-Rad	Barium	7440-39-3	12	12	0	100	ug/L	--	--	123	168	0.11	150	95% Student's-t UCL	--
199-N-3	non-Rad	Benzo(a)anthracene	56-55-3	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-3	non-Rad	Benzo(a)pyrene	50-32-8	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-3	non-Rad	Beryllium	7440-41-7	7	0	7	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-3	non-Rad	Boron	7440-42-8	7	7	0	100	ug/L	--	--	15	32	0.22	31	95% Student's-t UCL	--
199-N-3	non-Rad	Cadmium	7440-43-9	7	0	7	0	ug/L	0.099	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-3	non-Rad	Carbon tetrachloride	56-23-5	7	0	7	0	ug/L	0.13	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-3	non-Rad	Chloroform	67-66-3	7	7	0	100	ug/L	--	--	0.27	1.5	0.57	1.2	95% Student's-t UCL	--
199-N-3	non-Rad	Chromium	7440-47-3	12	10	2	83	ug/L	5.0	5.0	4.3	18	0.59	10	95% KM (t) UCL	--
199-N-3	non-Rad	Chrysene	218-01-9	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-3	non-Rad	Cobalt	7440-48-4	7	2	5	29	ug/L	0.10	0.22	0.11	0.19	0.39	0.16	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-3	non-Rad	Copper	7440-50-8	7	3	4	43	ug/L	0.35	1.1	0.38	0.46	0.095	0.45	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-3	non-Rad	Dibenz[a,h]anthracene	53-70-3	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-3	non-Rad	Ethylbenzene	100-41-4	7	0	7	0	ug/L	0.090	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-3	non-Rad	Fluoranthene	206-44-0	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-3	non-Rad	Fluorene	86-73-7	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-3	non-Rad	Fluoride	16984-48-8	11	8	3	73	ug/L	46	50	41	75	0.16	67	95% KM (t) UCL	--
199-N-3	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-3	non-Rad	Iron	7439-89-6	12	10	2	83	ug/L	30	30	22	180	0.53	113	95% KM (t) UCL	--
199-N-3	non-Rad	Lithium	7439-93-2	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-3	non-Rad	Manganese	7439-96-5	12	10	2	83	ug/L	4.0	4.0	1.9	66	1.5	47	95% KM Bootstrap t UCL	--
199-N-3	non-Rad	Methylene chloride	75-09-2	7	1	6	14	ug/L	0.27	1.6	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-3	non-Rad	Molybdenum	7439-98-7	7	5	2	71	ug/L	1.0	1.0	0.41	0.55	0.11	0.52	95% KM (t) UCL	--
199-N-3	non-Rad	Naphthalene	91-20-3	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-3	non-Rad	Nickel	7440-02-0	12	9	3	75	ug/L	5.0	13	1.2	8.4	0.64	4.7	95% KM (t) UCL	--
199-N-3	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	70,800	111,000	0.13	96,458	95% Student's-t UCL	--
199-N-3	non-Rad	Nitrite	14797-65-0	11	1	10	9.1	ug/L	20	131	621	621	0	621	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-3	non-Rad	Pyrene	129-00-0	7	0	7	0	ug/L	0.028	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-3	non-Rad	Selenium	7782-49-2	7	4	3	57	ug/L	1.5	1.5	1.4	2.0	0.15	1.9	95% KM (t) UCL	--
199-N-3	non-Rad	Silver	7440-22-4	7	0	7	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-3	non-Rad	Strontium	7440-24-6	11	11	0	100	ug/L	--	--	527	672	0.089	623	95% Student's-t UCL	--
199-N-3	non-Rad	Tetrachloroethene	127-18-4	7	5	2	71	ug/L	0.18	0.30	0.31	0.39	0.095	0.37	95% KM (t) UCL	--
199-N-3	non-Rad	Thallium	7440-28-0	7	0	7	0	ug/L	0.014	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-3	non-Rad	Tin	7440-31-5	7	0	7	0	ug/L	1.0	1.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-3	non-Rad	Toluene	108-88-3	7	0	7	0	ug/L	0.070	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-3	non-Rad	Trichloroethene	79-01-6	7	0	7	0	ug/L	0.25	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-3	non-Rad	Uranium	7440-61-1	7	7	0	100	ug/L	--	--	4.8	6.5	0.13	6.0	95% Student's-t UCL	--
199-N-3	non-Rad	Vanadium	7440-62-2	12	5	7	42	ug/L	2.0	22	2.0	2.2	0.046	2.1	95% KM (t) UCL	--
199-N-3	non-Rad	Zinc	7440-66-6	12	11	1	92	ug/L	42	42	7.9	47	0.77	28	95% KM (Chebyshev) UCL	--
199-N-3	Rad	Strontium-90	10098-97-2	8	8	0	100	pCi/L	--	--	647	1,300	0.24	991	95% Student's-t UCL	--
199-N-3	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	2,200	4,620	0.22	4,433	95% Student's-t UCL	--
199-N-315	non-Rad	Aluminum	7429-90-5	2	1	1	50	ug/L	15	15	55	55	0	55	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-315	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	41	63	0.22	63	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-315	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	2.6	3.4	0.19	3.4	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-315	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	96	100	0.031	100	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-315	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	30	30	36	54	0.27	54	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-315	non-Rad	Manganese	7439-96-5	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-315	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	2.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-315	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-315	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	30,600	57,500	0.32	57,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-315	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-315	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	186	254	0.15	254	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-315	non-Rad	Vanadium	7440-62-2	3	2	1	67	ug/L	5.0	5.0	2.3	2.3	0.021	2.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-315	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	11	20	0.40	20	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-315	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	570	933	0.26	933	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-316	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	23	63	0.67	63	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-316	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	26	50	0.40	50	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-316	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	4.1	6.6	0.33	6.6	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-316	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	95	100	0.036	100	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-316	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	40	40	108	133	0.15	133	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-316	non-Rad	Manganese	7439-96-5	3	1	2	33	ug/L	1.0	4.0	13	13	0	13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-316	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-316	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	2.6	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-316	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	20,500	57,500	0.61	57,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-316	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-316	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	162	305	0.39	305	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-316	non-Rad	Vanadium	7440-62-2	3	1	2	33	ug/L	4.4	5.0	5.7	5.7	0	5.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-316	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	7.1	43	0.96	43	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-316	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	84	140	0.25	140	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	15	15	21	21	0	21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-32	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-32	non-Rad	Arsenic	7440-38-2	3	2	1	67	ug/L	1.7	1.7	3.3	4.1	0.16	4.1	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-32	non-Rad	Barium	7440-39-3	11	11	0	100	ug/L	--	--	40	52	0.079	48	95% Student's-t UCL	--
199-N-32	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-32	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	32	34	0.032	34	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Cadmium	7440-43-9	3	1	2	33	ug/L	0.11	0.11	0.18	0.18	0	0.18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-32	non-Rad	Chromium	7440-47-3	11	11	0	100	ug/L	--	--	5.8	10	0.24	8.3	95% Modified-t UCL	--
199-N-32	non-Rad	Cobalt	7440-48-4	3	3	0	100	ug/L	--	--	0.20	0.37	0.35	0.37	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Copper	7440-50-8	3	3	0	100	ug/L	--	--	0.36	1.2	0.65	1.2	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Fluoride	16984-48-8	11	8	3	73	ug/L	46	50	60	171	0.33	109	95% KM (t) UCL	--
199-N-32	non-Rad	Iron	7439-89-6	11	11	0	100	ug/L	--	--	278	848	0.34	632	95% Student's-t UCL	--
199-N-32	non-Rad	Manganese	7439-96-5	11	11	0	100	ug/L	--	--	24	73	0.43	44	95% Student's-t UCL	--
199-N-32	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	0.79	0.95	0.092	0.95	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Nickel	7440-02-0	11	8	3	73	ug/L	4.0	10	2.2	7.4	0.52	4.6	95% KM (t) UCL	--
199-N-32	non-Rad	Nitrate	14797-55-8	11	11	0	100	ug/L	--	--	48,700	93,000	0.21	78,054	95% Student's-t UCL	--
199-N-32	non-Rad	Nitrite	14797-65-0	11	2	9	18	ug/L	125	250	83	129	0.30	103	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-32	non-Rad	Selenium	7782-49-2	3	1	2	33	ug/L	1.5	1.5	1.8	1.8	0	1.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-32	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-32	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	349	468	0.078	431	95% Student's-t UCL	--
199-N-32	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-32	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-32	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	3.6	4.2	0.076	4.2	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-32	non-Rad	Vanadium	7440-62-2	11	10	1	91	ug/L	10	10	7.0	11	0.11	9.9	95% KM (t) UCL	--
199-N-32	non-Rad	Zinc	7440-66-6	11	5	6	45	ug/L	3.3	5.0	3.8	7.0	0.24	4.9	95% KM (t) UCL	--
199-N-32	Rad	Cesium-137	10045-97-3	7	0	7	0	pCi/L	5.6	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-32	Rad	Strontium-90	10098-97-2	8	0	8	0	pCi/L	0.65	1.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-32	Rad	Tritium	10028-17-8	8	8	0	100	pCi/L	--	--	9,050	17,000	0.21	14,710	95% Student's-t UCL	--
199-N-332	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	313	636	0.48	636	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-332	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	42	51	0.11	51	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-332	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	5.0	5.0	5.3	7.3	0.22	7.3	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-332	non-Rad	Fluoride	16984-48-8	3	1	2	33	ug/L	50	50	95	95	0	95	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoride was not processed!
199-N-332	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	231	538	0.50	538	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-332	non-Rad	Manganese	7439-96-5	3	3	0	100	ug/L	--	--	4.9	30	0.74	30	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-332	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-332	non-Rad	Nickel	7440-02-0	3	2	1	67	ug/L	10	10	3.1	3.2	0.022	3.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-332	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	40,900	48,700	0.091	48,700	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-332	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-332	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	221	294	0.14	294	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-332	non-Rad	Vanadium	7440-62-2	3	1	2	33	ug/L	4.4	5.0	5.0	5.0	0	5.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-332	non-Rad	Zinc	7440-66-6	3	1	2	33	ug/L	8.3	8.3	103	103	0	103	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-332	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	442	560	0.12	560	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-333	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-333	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	24	36	0.20	36	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-333	non-Rad	Chromium	7440-47-3	3	1	2	33	ug/L	3.4	5.0	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-333	non-Rad	Fluoride	16984-48-8	3	2	1	67	ug/L	50	50	74	130	0.39	130	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-333	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	30	30	52	82	0.32	82	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-333	non-Rad	Manganese	7439-96-5	3	1	2	33	ug/L	2.0	4.0	4.2	4.2	0	4.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-333	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	1.9	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-333	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-333	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	7,080	26,100	0.56	26,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-333	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	9.9	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-333	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	97	202	0.35	202	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-333	non-Rad	Vanadium	7440-62-2	3	1	2	33	ug/L	4.4	5.0	1.9	1.9	0	1.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-333	non-Rad	Zinc	7440-66-6	3	3	0	100	ug/L	--	--	3.3	68	1.3	68	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-333	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	47	135	0.47	135	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-34	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	46	46	0	46	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.9	2.9	0	2.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	43	54	0.11	52	95% Student's-t UCL	--
199-N-34	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	16	16	0	16	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	8.0	19	0.32	17	95% Student's-t UCL	--
199-N-34	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-34	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.77	0.77	0	0.77	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	66	130	0.27	128	95% KM (t) UCL	--
199-N-34	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	35	98	0.43	96	95% Student's-t UCL	--
199-N-34	non-Rad	Manganese	7439-96-5	5	3	2	60	ug/L	4.0	4.0	1.2	12	0.87	9.2	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-34	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Nickel	7440-02-0	5	4	1	80	ug/L	5.0	5.0	3.4	7.4	0.31	7.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-34	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	38,500	63,300	0.19	57,977	95% Student's-t UCL	--
199-N-34	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	20	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-34	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	319	407	0.11	407	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-34	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-34	non-Rad	Vanadium	7440-62-2	5	4	1	80	ug/L	10	10	6.4	8.3	0.11	8.0	95% KM (t) UCL	--
199-N-34	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.0	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-34	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	36	47	0.099	45	95% Student's-t UCL	--
199-N-34	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	7,270	11,000	0.15	10,175	95% Student's-t UCL	--
199-N-342	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	17	202	1.2	202	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-342	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	20	34	0.30	34	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Chromium	7440-47-3	3	2	1	67	ug/L	1.0	1.0	1.1	2.4	0.55	2.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-342	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	66	92	0.18	92	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	42	260	0.84	260	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Manganese	7439-96-5	3	2	1	67	ug/L	2.0	2.0	11	32	0.68	32	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-342	non-Rad	Molybdenum	7439-98-7	3	0	3	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-342	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-342	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	1,240	34,100	1.0	34,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-342	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	113	222	0.34	222	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Vanadium	7440-62-2	3	3	0	100	ug/L	--	--	3.2	5.1	0.28	5.1	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-342	non-Rad	Zinc	7440-66-6	3	2	1	67	ug/L	3.3	3.3	4.7	9.4	0.47	9.4	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-342	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	5.0	7.9	0.25	7.9	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-343	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	72	72	0	72	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Barium	7440-39-3	2	2	0	100	ug/L	--	--	23	33	0.25	33	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Chromium	7440-47-3	2	0	2	0	ug/L	3.4	3.4	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Fluoride	16984-48-8	2	2	0	100	ug/L	--	--	109	140	0.18	140	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Iron	7439-89-6	2	2	0	100	ug/L	--	--	20	82	0.86	82	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Manganese	7439-96-5	2	1	1	50	ug/L	1.0	1.0	8.8	8.8	0	8.8	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Molybdenum	7439-98-7	2	0	2	0	ug/L	1.9	1.9	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Nickel	7440-02-0	2	0	2	0	ug/L	2.6	2.6	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	9,740	16,200	0.35	16,200	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Nitrite	14797-65-0	2	0	2	0	ug/L	9.9	125	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-343	non-Rad	Strontium	7440-24-6	2	2	0	100	ug/L	--	--	84	128	0.29	128	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Vanadium	7440-62-2	2	0	2	0	ug/L	4.4	4.4	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	non-Rad	Zinc	7440-66-6	2	2	0	100	ug/L	--	--	11	11	0.045	11	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-343	Rad	Strontium-90	10098-97-2	2	1	1	50	pCi/L	0.55	0.55	0.95	0.95	0	0.95	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	2-Butanone	78-93-3	3	0	3	0	ug/L	0.47	0.52	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-346	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	9.1	9.1	0	9.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Acetone	67-64-1	3	0	3	0	ug/L	0.34	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-346	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	14	17	19	19	0	19	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-346	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	0.084	1.7	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Arsenic	7440-38-2	2	0	2	0	ug/L	0.18	1.2	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Barium	7440-39-3	7	6	1	86	ug/L	0.23	0.23	200	267	0.11	256	95% KM (t) UCL	--
199-N-346	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.27	0.35	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	;(2-ethylhexyl) phthal	117-81-7	3	1	2	33	ug/L	1.7	1.8	36	36	0	36	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bis(2-ethylhexyl) phthalate was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-346	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	6.4	6.4	20	20	0	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Butylbenzylphthalate	85-68-7	2	1	1	50	ug/L	0.94	0.94	140	140	0	140	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.099	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Carbon tetrachloride	56-23-5	3	0	3	0	ug/L	0.13	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-346	non-Rad	Chloroform	67-66-3	3	2	1	67	ug/L	0.10	0.10	0.25	0.33	0.20	0.33	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-346	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Chromium	7440-47-3	7	0	7	0	ug/L	1.0	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
199-N-346	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.070	0.070	0.43	0.43	0	0.43	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Copper	7440-50-8	2	1	1	50	ug/L	1.1	1.1	0.82	0.82	0	0.82	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	ibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Ethylbenzene	100-41-4	3	0	3	0	ug/L	0.090	0.12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-346	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	75	110	0.16	110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-346	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Iron	7439-89-6	7	6	1	86	ug/L	16	16	140	7,450	1.3	4,239	95% KM (t) UCL	--
199-N-346	non-Rad	Manganese	7439-96-5	7	6	1	86	ug/L	0.30	0.30	2,860	5,090	0.21	4,381	95% KM (t) UCL	--
199-N-346	non-Rad	Methylene chloride	75-09-2	3	0	3	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-346	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	0.41	4.0	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-346	non-Rad	Naphthalene	91-20-3	3	0	3	0	ug/L	0.94	0.99	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-346	non-Rad	Nickel	7440-02-0	7	4	3	57	ug/L	1.6	10	0.84	3.9	0.64	2.9	95% KM (t) UCL	--
199-N-346	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	1,670	21,700	0.62	19,882	95% Student's-t UCL	--
199-N-346	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	312	220	220	0	220	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-346	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	0.66	1.6	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Strontium	7440-24-6	6	5	1	83	ug/L	0.31	0.31	495	784	0.16	784	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-346	non-Rad	Tetrachloroethene	127-18-4	3	0	3	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-346	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.014	0.55	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.1	1.3	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Toluene	108-88-3	3	0	3	0	ug/L	0.070	0.14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-346	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	0.94	0.94	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Trichloroethene	79-01-6	3	0	3	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-346	non-Rad	Uranium	7440-61-1	2	1	1	50	ug/L	0.027	0.027	2.6	2.6	0	2.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-346	non-Rad	Vanadium	7440-62-2	7	1	6	14	ug/L	0.93	5.0	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-346	non-Rad	Zinc	7440-66-6	7	1	6	14	ug/L	3.3	9.1	10	10	0	10	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-346	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	5.4	6.2	0.061	6.2	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-346	Rad	Tritium	10028-17-8	2	2	0	100	pCi/L	--	--	1,670	1,770	0.041	1,770	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	15	15	197	197	0	197	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-354	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	29	80	0.37	65	95% Student's-t UCL	--
199-N-354	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Chromium	7440-47-3	7	5	2	71	ug/L	2.0	5.0	1.3	3.0	0.31	2.8	95% KM (t) UCL	--
199-N-354	non-Rad	Cobalt	7440-48-4	1	1	0	100	ug/L	--	--	0.11	0.11	0	0.11	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.51	0.51	0	0.51	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	59	93	0.19	84	95% KM (t) UCL	--
199-N-354	non-Rad	Iron	7439-89-6	7	2	5	29	ug/L	30	40	34	226	1.0	218	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-354	non-Rad	Manganese	7439-96-5	7	1	6	14	ug/L	1.0	4.0	7.3	7.3	0	7.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-354	non-Rad	Molybdenum	7439-98-7	6	2	4	33	ug/L	2.0	4.0	0.70	2.1	0.70	2.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-354	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.5	10	0.86	0.86	0	0.86	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-354	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	18,100	75,300	0.59	66,031	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-354	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-354	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	100	263	0.33	227	95% Student's-t UCL	--
199-N-354	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.57	0.57	0	0.57	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-354	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	2.3	3.2	0.11	2.9	95% KM (t) UCL	--
199-N-354	non-Rad	Zinc	7440-66-6	7	3	4	43	ug/L	3.3	5.0	4.1	19	0.86	11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-354	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	5.0	14	0.41	13	95% Student's-t UCL	--
199-N-354	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	8,170	8,170	0	8,170	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	15	15	157	157	0	157	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-355	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	28	60	0.27	52	95% Student's-t UCL	--
199-N-355	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	2.0	5.0	1.8	2.8	0.24	2.8	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-355	non-Rad	Cobalt	7440-48-4	1	1	0	100	ug/L	--	--	0.12	0.12	0	0.12	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.69	0.69	0	0.69	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	69	98	0.17	92	95% KM (t) UCL	--
199-N-355	non-Rad	Iron	7439-89-6	7	4	3	57	ug/L	30	40	20	145	0.85	83	95% KM (t) UCL	--
199-N-355	non-Rad	Manganese	7439-96-5	7	4	3	57	ug/L	1.0	4.0	1.4	15	1.1	7.7	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-355	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.88	0.88	0	0.88	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-355	non-Rad	Nickel	7440-02-0	7	2	5	29	ug/L	1.5	10	1.0	3.9	0.82	3.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-355	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	31,400	88,500	0.37	82,257	95% Student's-t UCL	--
199-N-355	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	131	138	138	0	138	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-355	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	134	285	0.30	273	95% Student's-t UCL	--
199-N-355	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.55	0.55	0	0.55	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-355	non-Rad	Vanadium	7440-62-2	7	4	3	57	ug/L	4.4	5.0	2.5	2.8	0.050	2.7	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-355	non-Rad	Zinc	7440-66-6	7	4	3	57	ug/L	3.3	8.3	4.9	29	0.70	17	95% KM (t) UCL	--
199-N-355	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	766	1,510	0.23	1,444	95% Student's-t UCL	--
199-N-355	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	10,100	10,100	0	10,100	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	15	15	58	183	0.73	183	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-356	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	21	70	0.45	57	95% Student's-t UCL	--
199-N-356	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Chromium	7440-47-3	7	5	2	71	ug/L	2.0	5.0	1.3	2.8	0.30	2.5	95% KM (t) UCL	--
199-N-356	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-356	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.55	0.55	0	0.55	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	55	99	0.29	88	95% KM (t) UCL	--
199-N-356	non-Rad	Iron	7439-89-6	7	3	4	43	ug/L	30	30	55	221	0.79	125	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-356	non-Rad	Manganese	7439-96-5	7	2	5	29	ug/L	1.0	4.0	2.5	4.9	0.46	3.3	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-356	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.84	0.84	0	0.84	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-356	non-Rad	Nickel	7440-02-0	7	2	5	29	ug/L	1.5	10	0.76	1.6	0.49	1.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-356	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	12,800	79,700	0.70	70,797	95% Student's-t UCL	--
199-N-356	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-356	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	88	288	0.45	221	95% Student's-t UCL	--
199-N-356	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.29	0.29	0	0.29	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-356	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	1.5	2.2	0.14	2.1	95% KM (t) UCL	--
199-N-356	non-Rad	Zinc	7440-66-6	7	4	3	57	ug/L	3.3	3.3	3.6	29	1.1	17	95% Hall's Bootstrap	--
199-N-356	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	237	729	0.48	712	95% Student's-t UCL	--
199-N-356	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	9,780	9,780	0	9,780	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Aluminum	7429-90-5	4	4	0	100	ug/L	--	--	19	81	0.61	81	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-357	non-Rad	Antimony	7440-36-0	2	2	0	100	ug/L	--	--	0.13	0.15	0.10	0.15	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	0.49	0.56	0.094	0.56	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	20	61	0.36	51	95% Student's-t UCL	--
199-N-357	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-357	non-Rad	Boron	7440-42-8	2	1	1	50	ug/L	6.4	6.4	8.6	8.6	0	8.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	3.4	5.0	1.3	4.1	0.50	4.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-357	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.070	0.070	0.070	0.070	0	0.070	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Copper	7440-50-8	2	0	2	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	78	88	0.052	88	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-357	non-Rad	Iron	7439-89-6	7	6	1	86	ug/L	13	13	14	210	0.96	144	95% KM (t) UCL	--
199-N-357	non-Rad	Manganese	7439-96-5	7	5	2	71	ug/L	1.0	1.0	1.1	13	0.92	7.1	95% KM (t) UCL	--
199-N-357	non-Rad	Molybdenum	7439-98-7	7	2	5	29	ug/L	1.9	4.0	0.54	0.88	0.34	0.88	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-357	non-Rad	Nickel	7440-02-0	7	0	7	0	ug/L	2.6	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-357	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	27,000	66,400	0.43	58,026	95% Student's-t UCL	--
199-N-357	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-357	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	0.66	0.66	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	81	230	0.35	197	95% Student's-t UCL	--
199-N-357	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.014	0.014	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.3	1.3	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	0.52	1.1	0.51	1.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-357	non-Rad	Vanadium	7440-62-2	7	1	6	14	ug/L	0.93	5.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-357	non-Rad	Zinc	7440-66-6	7	2	5	29	ug/L	8.3	9.1	8.1	14	0.38	11	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-357	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	1,240	2,610	0.27	2,446	95% Student's-t UCL	--
199-N-358	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	15	15	17	173	1.2	173	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-358	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	20	62	0.38	52	95% Student's-t UCL	--
199-N-358	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Chromium	7440-47-3	7	4	3	57	ug/L	1.0	5.0	1.3	2.4	0.29	2.1	95% KM (t) UCL	--
199-N-358	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.45	0.45	0	0.45	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	51	96	0.25	94	95% KM (t) UCL	--
199-N-358	non-Rad	Iron	7439-89-6	7	2	5	29	ug/L	30	40	64	208	0.75	203	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-358	non-Rad	Manganese	7439-96-5	7	2	5	29	ug/L	1.0	4.0	4.9	6.4	0.19	5.9	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-358	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.79	0.79	0	0.79	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-358	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.5	10	0.76	0.76	0	0.76	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-358	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	18,100	66,400	0.51	56,918	95% Student's-t UCL	--
199-N-358	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-358	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	79	232	0.37	191	95% Student's-t UCL	--
199-N-358	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-358	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.37	0.37	0	0.37	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-358	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	2.1	2.9	0.14	2.8	95% KM (t) UCL	--
199-N-358	non-Rad	Zinc	7440-66-6	7	4	3	57	ug/L	3.3	3.3	3.6	21	0.79	12	95% KM (t) UCL	--
199-N-358	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	535	1,210	0.31	1,179	95% Student's-t UCL	--
199-N-358	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	6,010	6,010	0	6,010	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	17	17	130	147	0.087	147	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-359	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	0.084	0.084	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	0.35	0.35	0	0.35	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	13	31	0.35	27	95% Student's-t UCL	--
199-N-359	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	6.4	6.4	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	3.4	5.0	1.4	3.8	0.47	3.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-359	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.070	0.070	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	89	96	0.035	96	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-359	non-Rad	Iron	7439-89-6	7	4	3	57	ug/L	13	40	26	145	1.0	99	95% Hall's Bootstrap	--
199-N-359	non-Rad	Manganese	7439-96-5	7	4	3	57	ug/L	0.70	1.0	2.5	17	0.99	8.7	95% KM (t) UCL	--
199-N-359	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.48	0.48	0	0.48	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-359	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.6	10	2.7	2.7	0	2.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-359	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	7,750	79,700	0.81	67,967	95% Student's-t UCL	--
199-N-359	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-359	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	0.90	0.90	0	0.90	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	98	270	0.41	221	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-359	non-Rad	Thallium	7440-28-0	1	1	0	100	ug/L	--	--	0.020	0.020	0	0.020	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Tin	7440-31-5	1	1	0	100	ug/L	--	--	1.4	1.4	0	1.4	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	0.23	0.50	0.52	0.50	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-359	non-Rad	Vanadium	7440-62-2	7	3	4	43	ug/L	4.4	5.0	1.0	6.1	1.1	3.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-359	non-Rad	Zinc	7440-66-6	7	3	4	43	ug/L	5.0	9.1	7.3	30	0.80	17	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-359	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	220	328	0.17	328	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-360	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	15	15	16	39	0.60	39	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-360	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	1.7	1.7	0	1.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	15	40	0.43	33	95% Student's-t UCL	--
199-N-360	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	1.0	5.0	2.1	2.4	0.075	2.3	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-360	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.92	0.92	0	0.92	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	87	100	0.064	100	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-360	non-Rad	Iron	7439-89-6	7	3	4	43	ug/L	30	40	35	47	0.15	41	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-360	non-Rad	Manganese	7439-96-5	7	4	3	57	ug/L	1.0	4.0	2.2	11	0.75	7.5	95% KM (t) UCL	--
199-N-360	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.79	0.79	0	0.79	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-360	non-Rad	Nickel	7440-02-0	7	2	5	29	ug/L	1.5	10	0.68	1.7	0.61	1.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-360	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	3,510	48,700	1.0	40,654	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-360	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-360	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	70	162	0.33	131	95% Student's-t UCL	--
199-N-360	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.45	0.45	0	0.45	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-360	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	1.2	2.6	0.32	2.0	95% KM (t) UCL	--
199-N-360	non-Rad	Zinc	7440-66-6	7	3	4	43	ug/L	3.3	3.5	6.3	17	0.49	11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-360	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	252	1,140	0.67	1,031	95% Student's-t UCL	--
199-N-360	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	7,020	7,020	0	7,020	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	21	342	1.4	342	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-361	non-Rad	Antimony	7440-36-0	1	1	0	100	ug/L	--	--	0.10	0.10	0	0.10	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	0.70	0.70	0	0.70	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	17	45	0.36	37	95% Student's-t UCL	--
199-N-361	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	11	11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	1.1	5.0	3.9	5.7	0.22	4.4	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-361	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.070	0.070	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	95	101	0.027	101	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-361	non-Rad	Iron	7439-89-6	7	5	2	71	ug/L	13	13	16	301	1.1	155	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-361	non-Rad	Manganese	7439-96-5	7	4	3	57	ug/L	1.0	4.0	1.6	34	1.4	34	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-361	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.60	0.60	0	0.60	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-361	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.6	10	3.3	3.3	0	3.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-361	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	9,380	62,000	0.54	60,061	95% Student's-t UCL	--
199-N-361	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-361	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	0.75	0.75	0	0.75	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	94	276	0.43	220	95% Student's-t UCL	--
199-N-361	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.014	0.014	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.3	1.3	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.32	0.32	0	0.32	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-361	non-Rad	Vanadium	7440-62-2	7	1	6	14	ug/L	2.0	5.0	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-361	non-Rad	Zinc	7440-66-6	7	5	2	71	ug/L	5.0	9.1	6.9	19	0.45	13	95% KM (t) UCL	--
199-N-361	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	31	307	0.80	307	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-362	non-Rad	Aluminum	7429-90-5	3	0	3	0	ug/L	15	15	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-362	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.0	2.0	0	2.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	26	53	0.22	49	95% Student's-t UCL	--
199-N-362	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Chromium	7440-47-3	7	5	2	71	ug/L	1.0	5.0	2.2	3.4	0.16	3.3	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-362	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.46	0.46	0	0.46	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	94	100	0.029	100	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-362	non-Rad	Iron	7439-89-6	7	1	6	14	ug/L	30	40	36	36	0	36	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-362	non-Rad	Manganese	7439-96-5	7	3	4	43	ug/L	2.0	4.0	1.5	8.0	0.69	5.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-362	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.54	0.54	0	0.54	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-362	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.5	10	0.95	0.95	0	0.95	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-362	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	38,600	53,100	0.13	53,011	95% Student's-t UCL	--
199-N-362	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-362	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	123	243	0.24	230	95% Student's-t UCL	--
199-N-362	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Tin	7440-31-5	1	1	0	100	ug/L	--	--	1.6	1.6	0	1.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.70	0.70	0	0.70	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-362	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	1.6	2.5	0.16	2.4	95% KM (t) UCL	--
199-N-362	non-Rad	Zinc	7440-66-6	7	3	4	43	ug/L	3.3	5.0	4.8	10	0.41	7.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-362	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	409	580	0.16	562	95% Student's-t UCL	--
199-N-362	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	8,730	8,730	0	8,730	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	26	203	0.90	203	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-363	non-Rad	Antimony	7440-36-0	1	1	0	100	ug/L	--	--	0.15	0.15	0	0.15	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-363	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	0.38	0.38	0	0.38	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	22	71	0.40	55	95% Student's-t UCL	--
199-N-363	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	11	11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Chromium	7440-47-3	7	2	5	29	ug/L	1.1	5.0	3.6	8.7	0.59	8.7	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-363	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.070	0.070	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	91	110	0.082	110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-363	non-Rad	Iron	7439-89-6	7	6	1	86	ug/L	13	13	37	136	0.55	94	95% KM (t) UCL	--
199-N-363	non-Rad	Manganese	7439-96-5	7	6	1	86	ug/L	1.0	1.0	1.2	28	1.0	16	95% KM (t) UCL	--
199-N-363	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.41	0.41	0	0.41	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-363	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.6	10	3.0	3.0	0	3.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-363	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	15,100	57,500	0.51	53,688	95% Student's-t UCL	--
199-N-363	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-363	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	98	293	0.41	224	95% Student's-t UCL	--
199-N-363	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.014	0.014	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.3	1.3	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.34	0.34	0	0.34	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-363	non-Rad	Vanadium	7440-62-2	7	1	6	14	ug/L	2.0	5.0	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-363	non-Rad	Zinc	7440-66-6	7	2	5	29	ug/L	5.0	9.1	4.6	12	0.63	12	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-363	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	443	673	0.19	664	95% Student's-t UCL	--
199-N-364	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	18	94	1.0	94	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-364	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	26	63	0.38	53	95% Student's-t UCL	--
199-N-364	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Cadmium	7440-43-9	1	1	0	100	ug/L	--	--	0.46	0.46	0	0.46	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Chromium	7440-47-3	7	5	2	71	ug/L	1.0	5.0	1.3	3.8	0.43	3.1	95% KM (t) UCL	--
199-N-364	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.89	0.89	0	0.89	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	77	95	0.090	95	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-364	non-Rad	Iron	7439-89-6	7	1	6	14	ug/L	30	40	95	95	0	95	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-364	non-Rad	Manganese	7439-96-5	7	2	5	29	ug/L	2.0	4.0	1.0	10	1.2	10	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-364	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.55	0.55	0	0.55	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-364	non-Rad	Nickel	7440-02-0	7	0	7	0	ug/L	0.50	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-364	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	14,500	57,500	0.51	57,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-364	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-364	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	118	278	0.38	244	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-364	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.42	0.42	0	0.42	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-364	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	1.5	2.7	0.19	2.6	95% KM H-UCL	--
199-N-364	non-Rad	Zinc	7440-66-6	7	3	4	43	ug/L	3.3	5.0	4.2	12	0.60	7.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-364	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	206	570	0.42	570	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-364	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	8,960	8,960	0	8,960	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	14	14	25	27	0.066	27	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-365	non-Rad	Antimony	7440-36-0	1	1	0	100	ug/L	--	--	0.18	0.18	0	0.18	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	19	54	0.35	50	95% Student's-t UCL	--
199-N-365	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	11	11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Chromium	7440-47-3	7	3	4	43	ug/L	1.1	5.0	3.6	7.6	0.43	5.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-365	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.070	0.070	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	93	110	0.079	110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-365	non-Rad	Iron	7439-89-6	7	3	4	43	ug/L	13	40	19	31	0.29	24	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-365	non-Rad	Manganese	7439-96-5	7	3	4	43	ug/L	1.0	4.0	0.86	4.5	0.92	2.6	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-365	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.88	0.88	0	0.88	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-365	non-Rad	Nickel	7440-02-0	7	2	5	29	ug/L	1.6	10	2.7	3.4	0.16	3.1	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-365	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	10,600	53,100	0.46	53,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-365	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-365	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	0.66	0.66	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	107	294	0.35	261	95% Student's-t UCL	--
199-N-365	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.014	0.014	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.3	1.3	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	0.51	0.67	0.19	0.67	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-365	non-Rad	Vanadium	7440-62-2	7	2	5	29	ug/L	4.4	5.0	1.8	2.8	0.31	2.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-365	non-Rad	Zinc	7440-66-6	7	2	5	29	ug/L	3.0	9.1	14	15	0.058	14	95% KM H-UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-365	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	117	278	0.36	273	95% Student's-t UCL	--
199-N-366	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	23	316	1.3	316	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-366	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	19	51	0.34	46	95% Student's-t UCL	--
199-N-366	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Chromium	7440-47-3	7	4	3	57	ug/L	1.0	5.0	1.7	3.1	0.27	2.6	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-366	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.57	0.57	0	0.57	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	88	110	0.10	108	95% KM (t) UCL	--
199-N-366	non-Rad	Iron	7439-89-6	7	4	3	57	ug/L	30	40	36	209	0.74	136	95% KM (t) UCL	--
199-N-366	non-Rad	Manganese	7439-96-5	7	5	2	71	ug/L	2.0	4.0	1.3	36	1.2	19	95% KM (t) UCL	--
199-N-366	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	2.0	4.0	0.68	0.68	0	0.68	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-366	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.5	10	0.55	0.55	0	0.55	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-366	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	6,640	44,300	0.50	44,300	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-366	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-366	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	87	254	0.37	216	95% Student's-t UCL	--
199-N-366	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Tin	7440-31-5	1	1	0	100	ug/L	--	--	1.6	1.6	0	1.6	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.31	0.31	0	0.31	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-366	non-Rad	Vanadium	7440-62-2	7	6	1	86	ug/L	5.0	5.0	1.2	2.5	0.28	2.2	95% KM (t) UCL	--
199-N-366	non-Rad	Zinc	7440-66-6	7	5	2	71	ug/L	3.3	3.3	3.4	28	0.89	16	95% KM (t) UCL	--
199-N-366	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	63	290	0.51	280	95% Student's-t UCL	--
199-N-366	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	7,460	7,460	0	7,460	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Aluminum	7429-90-5	3	2	1	67	ug/L	14	14	31	147	0.92	147	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-367	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	0.084	0.084	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	0.62	0.62	0	0.62	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	20	50	0.27	46	95% Student's-t UCL	--
199-N-367	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	11	11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-367	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.099	0.099	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Chromium	7440-47-3	7	4	3	57	ug/L	3.4	5.0	1.1	5.9	0.61	4.3	95% KM (t) UCL	--
199-N-367	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.070	0.070	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	50	50	92	110	0.073	110	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-367	non-Rad	Iron	7439-89-6	7	3	4	43	ug/L	13	40	21	27	0.12	24	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-367	non-Rad	Manganese	7439-96-5	7	2	5	29	ug/L	0.70	4.0	0.49	2.0	0.86	2.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-367	non-Rad	Molybdenum	7439-98-7	6	1	5	17	ug/L	1.9	4.0	0.57	0.57	0	0.57	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-367	non-Rad	Nickel	7440-02-0	7	1	6	14	ug/L	1.6	10	2.7	2.7	0	2.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-367	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	24,200	39,000	0.20	37,329	95% Student's-t UCL	--
199-N-367	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-367	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	0.74	0.74	0	0.74	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.039	0.039	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	114	253	0.28	236	95% Student's-t UCL	--
199-N-367	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.014	0.014	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.3	1.3	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.19	0.19	0	0.19	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-367	non-Rad	Vanadium	7440-62-2	7	3	4	43	ug/L	4.4	5.0	2.3	5.3	0.50	3.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-367	non-Rad	Zinc	7440-66-6	7	1	6	14	ug/L	3.0	9.1	17	17	0	17	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-367	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	19	29	0.19	29	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-367	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	7,100	7,100	0	7,100	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-371	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-371	non-Rad	Acetone	67-64-1	4	1	3	25	ug/L	3.0	3.0	3.7	3.7	0	3.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-371	non-Rad	Aluminum	7429-90-5	4	2	2	50	ug/L	13	15	15	34	0.57	34	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-371	non-Rad	Antimony	7440-36-0	4	1	3	25	ug/L	0.40	1.0	0.53	0.53	0	0.53	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-371	non-Rad	Arsenic	7440-38-2	4	4	0	100	ug/L	--	--	3.5	6.8	0.25	6.8	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	36	42	0.060	41	95% Student's-t UCL	--
199-N-371	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.080	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-371	non-Rad	Boron	7440-42-8	4	3	1	75	ug/L	15	15	16	18	0.059	18	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-371	non-Rad	Cadmium	7440-43-9	4	0	4	0	ug/L	0.27	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-371	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-371	non-Rad	Chloroform	67-66-3	4	4	0	100	ug/L	--	--	3.1	4.0	0.11	4.0	95% Student's-t UCL	--
199-N-371	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	3.9	5.9	0.19	5.8	95% Student's-t UCL	--
199-N-371	non-Rad	Cobalt	7440-48-4	4	3	1	75	ug/L	0.10	0.10	0.099	0.13	0.13	0.13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-371	non-Rad	Copper	7440-50-8	4	3	1	75	ug/L	0.56	0.56	0.59	1.2	0.39	1.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-371	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-371	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	430	510	0.070	510	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Hexavalent Chromium	18540-29-9	4	4	0	100	ug/L	--	--	3.4	4.3	0.097	4.3	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Iron	7439-89-6	4	3	1	75	ug/L	30	30	35	92	0.53	85	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-371	non-Rad	Manganese	7439-96-5	4	3	1	75	ug/L	1.0	1.0	0.76	3.0	0.81	2.7	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-371	non-Rad	Methylene chloride	75-09-2	4	0	4	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-371	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	4.0	5.0	0.099	4.9	95% Student's-t UCL	--
199-N-371	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	0.48	1.2	0.43	1.2	95% Student's-t UCL	--
199-N-371	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	23,900	34,100	0.18	34,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	46	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-371	non-Rad	Selenium	7782-49-2	4	2	2	50	ug/L	2.0	2.0	1.0	1.1	0.067	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-371	non-Rad	Silver	7440-22-4	4	1	3	25	ug/L	0.033	0.40	0.038	0.038	0	0.038	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-371	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	146	170	0.065	170	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-371	non-Rad	Thallium	7440-28-0	4	1	3	25	ug/L	0.050	0.60	0.11	0.11	0	0.11	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-371	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	0.77	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-371	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-371	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-371	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	1.6	2.0	0.097	2.0	95% Student's-t UCL	--
199-N-371	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	9.3	15	0.24	15	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-371	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	2.0	3.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-371	Rad	Strontium-90	10098-97-2	4	0	4	0	pCi/L	0.93	1.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-371	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	994	1,470	0.19	1,409	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-372	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-372	non-Rad	Acetone	67-64-1	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-372	non-Rad	Aluminum	7429-90-5	4	3	1	75	ug/L	13	13	27	45	0.26	45	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-372	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	0.40	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-372	non-Rad	Arsenic	7440-38-2	4	4	0	100	ug/L	--	--	2.8	7.6	0.37	7.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	30	54	0.29	51	95% Student's-t UCL	--
199-N-372	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.080	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-372	non-Rad	Boron	7440-42-8	4	3	1	75	ug/L	15	15	14	18	0.15	18	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-372	non-Rad	Cadmium	7440-43-9	4	0	4	0	ug/L	0.27	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-372	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-372	non-Rad	Chloroform	67-66-3	4	4	0	100	ug/L	--	--	2.2	5.0	0.31	5.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	4.1	6.6	0.22	6.3	95% Student's-t UCL	--
199-N-372	non-Rad	Cobalt	7440-48-4	4	2	2	50	ug/L	0.054	0.10	0.069	0.13	0.41	0.13	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-372	non-Rad	Copper	7440-50-8	4	3	1	75	ug/L	0.56	0.56	0.70	1.3	0.29	1.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-372	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-372	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	270	510	0.25	510	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Hexavalent Chromium	18540-29-9	4	4	0	100	ug/L	--	--	2.1	5.4	0.41	5.3	95% Student's-t UCL	--
199-N-372	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	24	111	0.59	104	95% Student's-t UCL	--
199-N-372	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	0.73	6.1	0.90	5.5	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-372	non-Rad	Methylene chloride	75-09-2	4	0	4	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-372	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	4.1	8.0	0.26	8.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	0.60	1.4	0.38	1.4	95% Student's-t UCL	--
199-N-372	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	20,800	41,600	0.35	38,910	95% Student's-t UCL	--
199-N-372	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	125	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-372	non-Rad	Selenium	7782-49-2	4	2	2	50	ug/L	2.0	2.0	0.88	0.98	0.076	0.98	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-372	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.033	0.40	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-372	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	147	245	0.23	233	95% Student's-t UCL	--
199-N-372	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-372	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.050	0.60	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-372	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	0.77	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-372	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-372	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-372	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	1.6	2.6	0.19	2.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	7.3	18	0.34	18	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-372	non-Rad	Zinc	7440-66-6	4	1	3	25	ug/L	2.0	3.5	2.0	2.0	0	2.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-372	Rad	Strontium-90	10098-97-2	4	0	4	0	pCi/L	1.0	1.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-372	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	614	665	0.036	665	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	2-Butanone	78-93-3	4	0	4	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-373	non-Rad	Acenaphthene	83-32-9	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-373	non-Rad	Acetone	67-64-1	4	1	3	25	ug/L	3.0	3.0	4.1	4.1	0	4.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-373	non-Rad	Aluminum	7429-90-5	4	4	0	100	ug/L	--	--	34	95	0.44	89	95% Student's-t UCL	--
199-N-373	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-373	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	1.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-373	non-Rad	Arsenic	7440-38-2	4	2	2	50	ug/L	4.0	4.0	3.4	3.6	0.044	3.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-373	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	52	71	0.16	69	95% Student's-t UCL	--
199-N-373	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-373	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-373	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-373	non-Rad	Boron	7440-42-8	4	2	2	50	ug/L	25	25	18	24	0.18	24	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-373	non-Rad	Cadmium	7440-43-9	4	0	4	0	ug/L	0.20	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-373	non-Rad	Carbon tetrachloride	56-23-5	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-373	non-Rad	Chloroform	67-66-3	4	4	0	100	ug/L	--	--	2.6	3.5	0.12	3.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-373	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	6.7	8.5	0.10	8.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-373	non-Rad	Cobalt	7440-48-4	4	2	2	50	ug/L	0.90	0.90	0.35	0.65	0.43	0.65	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-373	non-Rad	Copper	7440-50-8	4	4	0	100	ug/L	--	--	0.89	2.1	0.43	2.0	95% Student's-t UCL	--
199-N-373	non-Rad	Dibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-373	non-Rad	Ethylbenzene	100-41-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-373	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-373	non-Rad	Fluorene	86-73-7	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-373	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	290	350	0.086	350	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	Hexavalent Chromiur	18540-29-9	4	4	0	100	ug/L	--	--	3.3	5.2	0.20	5.0	95% Student's-t UCL	--
199-N-373	non-Rad	Indeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-373	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	79	250	0.59	226	95% Student's-t UCL	--
199-N-373	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	4.7	53	1.3	53	Maximum Detect	Warning: One or more Recommended UCL(s) not available! When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
199-N-373	non-Rad	Methylene chloride	75-09-2	4	0	4	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-373	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	4.8	7.0	0.16	7.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	Naphthalene	91-20-3	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-373	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	3.1	24	0.63	24	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-373	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	48,700	75,300	0.19	75,300	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	46	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-373	non-Rad	Pyrene	129-00-0	4	0	4	0	ug/L	0.028	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-373	non-Rad	Selenium	7782-49-2	4	4	0	100	ug/L	--	--	2.6	3.4	0.11	3.4	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-373	non-Rad	Silver	7440-22-4	4	0	4	0	ug/L	0.40	0.90	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-373	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	285	372	0.12	366	95% Student's-t UCL	--
199-N-373	non-Rad	Tetrachloroethene	127-18-4	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-373	non-Rad	Thallium	7440-28-0	4	0	4	0	ug/L	0.60	0.90	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-373	non-Rad	Tin	7440-31-5	4	1	3	25	ug/L	1.0	1.2	5.5	5.5	0	5.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-373	non-Rad	Toluene	108-88-3	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-373	non-Rad	Trichloroethene	79-01-6	4	0	4	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-373	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	4.7	6.5	0.16	6.3	95% Modified-t UCL	--
199-N-373	non-Rad	Vanadium	7440-62-2	4	3	1	75	ug/L	25	25	7.2	9.9	0.16	9.9	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-373	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	3.5	7.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-373	Rad	Strontium-90	10098-97-2	4	0	4	0	pCi/L	1.0	1.8	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-373	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	991	1,360	0.13	1,360	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-374	non-Rad	2-Butanone	78-93-3	3	0	3	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-374	non-Rad	Acetone	67-64-1	3	1	2	33	ug/L	3.0	3.0	3.8	3.8	0	3.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-374	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	29	69	0.41	69	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-374	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	8.3	8.8	0.030	8.8	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	36	43	0.11	43	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-374	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	31	73	0.45	73	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Cadmium	7440-43-9	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-374	non-Rad	Carbon tetrachloride	56-23-5	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-374	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	3.6	4.3	0.086	4.3	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Chromium	7440-47-3	3	3	0	100	ug/L	--	--	4.1	5.4	0.13	5.4	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Cobalt	7440-48-4	3	2	1	67	ug/L	0.10	0.10	0.12	0.14	0.12	0.14	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-374	non-Rad	Copper	7440-50-8	3	3	0	100	ug/L	--	--	0.40	1.5	0.56	1.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Ethylbenzene	100-41-4	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-374	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	250	540	0.30	540	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Hexavalent Chromium	18540-29-9	4	4	0	100	ug/L	--	--	3.0	5.3	0.27	5.2	95% Student's-t UCL	--
199-N-374	non-Rad	Iron	7439-89-6	3	3	0	100	ug/L	--	--	46	150	0.51	150	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-374	non-Rad	Manganese	7439-96-5	3	2	1	67	ug/L	1.0	1.0	4.7	8.9	0.44	8.9	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-374	non-Rad	Methylene chloride	75-09-2	3	0	3	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-374	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	5.3	6.9	0.13	6.9	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Nickel	7440-02-0	3	3	0	100	ug/L	--	--	0.68	1.6	0.40	1.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	24,300	57,500	0.48	53,677	95% Modified-t UCL	--
199-N-374	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	46	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-374	non-Rad	Selenium	7782-49-2	3	0	3	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-374	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.40	0.40	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-374	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	155	178	0.073	178	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Tetrachloroethene	127-18-4	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-374	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.60	0.60	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-374	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-374	non-Rad	Toluene	108-88-3	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-374	non-Rad	Trichloroethene	79-01-6	3	0	3	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-374	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	2.2	2.5	0.056	2.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	non-Rad	Vanadium	7440-62-2	3	3	0	100	ug/L	--	--	15	20	0.14	20	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-374	non-Rad	Zinc	7440-66-6	3	0	3	0	ug/L	3.5	3.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-374	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	5.3	14	0.48	14	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-374	Rad	Tritium	10028-17-8	3	3	0	100	pCi/L	--	--	9,710	115,000	1.3	115,000	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	2-Butanone	78-93-3	3	0	3	0	ug/L	0.47	0.47	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-376	non-Rad	Acetone	67-64-1	3	2	1	67	ug/L	0.55	0.55	1.6	2.3	0.25	2.3	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-376	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	33	217	1.1	217	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-376	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	11	14	0.12	14	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Barium	7440-39-3	3	3	0	100	ug/L	--	--	22	28	0.14	28	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-376	non-Rad	Boron	7440-42-8	3	0	3	0	ug/L	25	25	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Boron was not processed!
199-N-376	non-Rad	Cadmium	7440-43-9	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-376	non-Rad	Carbon tetrachloride	56-23-5	3	0	3	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-376	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	1.9	2.3	0.095	2.3	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Chromium	7440-47-3	3	0	3	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-376	non-Rad	Cobalt	7440-48-4	3	0	3	0	ug/L	0.90	0.90	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-376	non-Rad	Copper	7440-50-8	3	3	0	100	ug/L	--	--	0.48	2.1	0.70	2.1	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Ethylbenzene	100-41-4	3	0	3	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-376	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	880	1,200	0.16	1,164	95% Modified-t UCL	--
199-N-376	non-Rad	Hexavalent Chromiur	18540-29-9	4	4	0	100	ug/L	--	--	1.9	3.7	0.30	3.5	95% Student's-t UCL	--
199-N-376	non-Rad	Iron	7439-89-6	3	2	1	67	ug/L	30	30	35	157	0.90	157	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-376	non-Rad	Manganese	7439-96-5	3	3	0	100	ug/L	--	--	1.2	14	1.3	14	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Methylene chloride	75-09-2	3	0	3	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-376	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	14	20	0.19	20	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Nickel	7440-02-0	3	0	3	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-376	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	14,200	23,900	0.26	23,900	(Alt) Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Nitrite	14797-65-0	4	1	3	25	ug/L	46	125	131	131	0	131	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-376	non-Rad	Selenium	7782-49-2	3	1	2	33	ug/L	2.0	2.0	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-376	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.90	0.90	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-376	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	86	128	0.20	128	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Tetrachloroethene	127-18-4	3	0	3	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-376	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.90	0.90	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-376	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.2	1.2	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-376	non-Rad	Toluene	108-88-3	3	0	3	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-376	non-Rad	Trichloroethene	79-01-6	3	0	3	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-376	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	2.0	2.7	0.15	2.7	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Vanadium	7440-62-2	3	3	0	100	ug/L	--	--	27	35	0.13	35	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-376	non-Rad	Zinc	7440-66-6	3	0	3	0	ug/L	7.5	7.5	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-376	Rad	Strontium-90	10098-97-2	3	1	2	33	pCi/L	0.96	1.7	2.1	2.1	0	2.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-376	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	951	1,610	0.21	1,610	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	non-Rad	2-Butanone	78-93-3	3	0	3	0	ug/L	0.47	0.47	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
199-N-377	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	10	10	0	10	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-377	non-Rad	Acenaphthene	83-32-9	3	0	3	0	ug/L	0.033	0.034	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-377	non-Rad	Acetone	67-64-1	3	1	2	33	ug/L	0.55	0.55	1.6	1.6	0	1.6	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-377	non-Rad	Aluminum	7429-90-5	4	4	0	100	ug/L	--	--	13	93	0.90	82	95% Student's-t UCL	--
199-N-377	non-Rad	Anthracene	120-12-7	3	0	3	0	ug/L	0.037	0.038	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-377	non-Rad	Antimony	7440-36-0	4	0	4	0	ug/L	0.40	2.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-377	non-Rad	Arsenic	7440-38-2	4	2	2	50	ug/L	4.0	4.0	0.82	0.87	0.042	0.87	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-377	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	56	63	0.052	63	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	non-Rad	Benzo(a)anthracene	56-55-3	3	0	3	0	ug/L	0.029	0.030	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-377	non-Rad	Benzo(a)pyrene	50-32-8	3	0	3	0	ug/L	0.050	0.051	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-377	non-Rad	Beryllium	7440-41-7	4	0	4	0	ug/L	0.080	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-377	non-Rad	Boron	7440-42-8	4	3	1	75	ug/L	25	25	24	29	0.089	28	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-377	non-Rad	Cadmium	7440-43-9	4	0	4	0	ug/L	0.20	0.27	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-377	non-Rad	Carbon tetrachloride	56-23-5	3	0	3	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-377	non-Rad	Chloroform	67-66-3	3	3	0	100	ug/L	--	--	1.9	2.0	0.029	2.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	non-Rad	Chromium	7440-47-3	4	3	1	75	ug/L	4.0	4.0	9.1	13	0.22	13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Chrysene	218-01-9	3	0	3	0	ug/L	0.037	0.038	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-377	non-Rad	Cobalt	7440-48-4	4	2	2	50	ug/L	0.90	0.90	0.36	1.2	0.76	1.2	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Copper	7440-50-8	4	3	1	75	ug/L	0.56	0.56	1.1	1.3	0.083	1.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Dibenz[a,h]anthracene	53-70-3	3	0	3	0	ug/L	0.043	0.045	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-377	non-Rad	Ethylbenzene	100-41-4	3	0	3	0	ug/L	0.12	0.12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-377	non-Rad	Fluoranthene	206-44-0	3	1	2	33	ug/L	0.032	0.033	0.045	0.045	0	0.045	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-377	non-Rad	Fluorene	86-73-7	3	0	3	0	ug/L	0.030	0.031	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-377	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	130	147	0.061	147	95% Student's-t UCL	--
199-N-377	non-Rad	Hexavalent Chromium	18540-29-9	4	2	2	50	ug/L	1.5	1.5	1.8	2.2	0.14	2.2	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	3	1	2	33	ug/L	0.038	0.038	0.042	0.042	0	0.042	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-377	non-Rad	Iron	7439-89-6	4	4	0	100	ug/L	--	--	45	217	0.53	216	95% Student's-t UCL	--
199-N-377	non-Rad	Manganese	7439-96-5	4	4	0	100	ug/L	--	--	5.6	98	1.0	93	95% Student's-t UCL	--
199-N-377	non-Rad	Methylene chloride	75-09-2	3	0	3	0	ug/L	0.27	0.27	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-377	non-Rad	Molybdenum	7439-98-7	4	4	0	100	ug/L	--	--	2.1	4.1	0.29	4.0	95% Student's-t UCL	--
199-N-377	non-Rad	Naphthalene	91-20-3	3	0	3	0	ug/L	0.064	0.066	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-377	non-Rad	Nickel	7440-02-0	4	4	0	100	ug/L	--	--	2.6	87	0.83	87	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	62,000	66,400	0.035	66,400	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	non-Rad	Nitrite	14797-65-0	4	0	4	0	ug/L	108	125	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-377	non-Rad	Pyrene	129-00-0	3	0	3	0	ug/L	0.035	0.036	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-377	non-Rad	Selenium	7782-49-2	4	2	2	50	ug/L	2.0	2.0	1.4	1.4	0	1.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-377	non-Rad	Silver	7440-22-4	4	2	2	50	ug/L	0.90	0.90	0.037	0.13	0.79	0.13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	462	557	0.090	543	95% Student's-t UCL	--
199-N-377	non-Rad	Tetrachloroethene	127-18-4	3	0	3	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-377	non-Rad	Thallium	7440-28-0	4	1	3	25	ug/L	0.050	0.90	0.056	0.056	0	0.056	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-377	non-Rad	Tin	7440-31-5	4	0	4	0	ug/L	0.77	1.2	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-377	non-Rad	Toluene	108-88-3	3	0	3	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-377	non-Rad	Trichloroethene	79-01-6	3	0	3	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-377	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	3.1	3.5	0.059	3.5	95% Student's-t UCL	--
199-N-377	non-Rad	Vanadium	7440-62-2	4	2	2	50	ug/L	15	15	2.7	3.4	0.16	3.4	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-377	non-Rad	Zinc	7440-66-6	4	2	2	50	ug/L	2.0	7.5	2.4	72	1.3	72	Maximum Detect	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-377	Rad	Strontium-90	10098-97-2	3	3	0	100	pCi/L	--	--	20	36	0.35	36	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-377	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	1,650	2,380	0.17	2,338	95% Student's-t UCL	--
199-N-41	non-Rad	Aluminum	7429-90-5	2	0	2	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	2.7	4.6	0.36	4.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	45	62	0.12	59	95% Student's-t UCL	--
199-N-41	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	15	16	0.032	16	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.11	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	17	56	0.59	50	95% Student's-t UCL	--
199-N-41	non-Rad	Cobalt	7440-48-4	2	2	0	100	ug/L	--	--	0.30	0.47	0.33	0.47	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	1.0	1.6	0.31	1.6	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	75	179	0.41	151	95% KM (t) UCL	--
199-N-41	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	69	276	0.68	243	95% Student's-t UCL	--
199-N-41	non-Rad	Manganese	7439-96-5	5	3	2	60	ug/L	2.0	4.0	1.6	5.8	0.56	4.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-41	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	1.2	2.0	0.36	2.0	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Nickel	7440-02-0	5	5	0	100	ug/L	--	--	2.6	24	0.78	20	95% Student's-t UCL	--
199-N-41	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	28,800	46,900	0.21	45,469	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-41	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	9.9	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-41	non-Rad	Selenium	7782-49-2	2	2	0	100	ug/L	--	--	4.1	6.4	0.30	6.4	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.20	0.40	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	366	521	0.13	512	95% Student's-t UCL	--
199-N-41	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.45	0.60	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	1.6	1.7	0.0086	1.7	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-41	non-Rad	Vanadium	7440-62-2	5	5	0	100	ug/L	--	--	11	17	0.19	15	95% Student's-t UCL	--
199-N-41	non-Rad	Zinc	7440-66-6	5	1	4	20	ug/L	3.5	8.3	4.7	4.7	0	4.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-41	Rad	Strontium-90	10098-97-2	5	1	4	20	pCi/L	0.55	1.6	1.0	1.0	0	1.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-41	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	5,580	7,000	0.094	6,757	95% Student's-t UCL	--
199-N-46	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	76	291	0.56	291	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-46	non-Rad	Antimony	7440-36-0	3	1	2	33	ug/L	1.7	1.7	0.59	0.59	0	0.59	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-46	non-Rad	Arsenic	7440-38-2	3	3	0	100	ug/L	--	--	5.0	6.5	0.13	6.5	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-46	non-Rad	Barium	7440-39-3	9	9	0	100	ug/L	--	--	14	27	0.26	23	95% Student's-t UCL	--
199-N-46	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.27	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-46	non-Rad	Boron	7440-42-8	3	2	1	67	ug/L	6.4	6.4	9.4	13	0.22	13	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-46	non-Rad	Cadmium	7440-43-9	3	0	3	0	ug/L	0.099	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-46	non-Rad	Chromium	7440-47-3	9	8	1	89	ug/L	5.0	5.0	3.6	7.5	0.20	6.2	95% KM (t) UCL	--
199-N-46	non-Rad	Cobalt	7440-48-4	3	1	2	33	ug/L	0.070	0.22	0.22	0.22	0	0.22	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-46	non-Rad	Copper	7440-50-8	3	2	1	67	ug/L	1.1	1.1	1.8	2.6	0.26	2.6	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-46	non-Rad	Fluoride	16984-48-8	10	4	6	40	ug/L	46	66	65	86	0.12	68	95% KM (t) UCL	--
199-N-46	non-Rad	Iron	7439-89-6	9	9	0	100	ug/L	--	--	65	363	0.64	220	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-46	non-Rad	Manganese	7439-96-5	9	9	0	100	ug/L	--	--	4.4	67	0.60	48	95% Student's-t UCL	--
199-N-46	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	0.91	1.1	0.095	1.1	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-46	non-Rad	Nickel	7440-02-0	9	2	7	22	ug/L	2.6	10	1.4	1.9	0.21	1.9	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-46	non-Rad	Nitrate	14797-55-8	10	9	1	90	ug/L	730	730	5,750	27,400	0.47	15,887	95% KM (t) UCL	--
199-N-46	non-Rad	Nitrite	14797-65-0	10	2	8	20	ug/L	125	250	133	394	0.70	310	95% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-46	non-Rad	Selenium	7782-49-2	3	0	3	0	ug/L	0.66	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-46	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-46	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	57	105	0.18	84	95% Student's-t UCL	--
199-N-46	non-Rad	Thallium	7440-28-0	3	1	2	33	ug/L	0.014	0.55	0.67	0.67	0	0.67	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-46	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.1	1.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-46	non-Rad	Uranium	7440-61-1	3	1	2	33	ug/L	0.23	0.23	0.040	0.040	0	0.040	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Uranium was not processed!
199-N-46	non-Rad	Vanadium	7440-62-2	9	6	3	67	ug/L	4.4	10	5.1	12	0.33	8.9	95% KM (t) UCL	--
199-N-46	non-Rad	Zinc	7440-66-6	9	4	5	44	ug/L	5.0	9.3	6.8	15	0.39	9.7	95% KM (t) UCL	--
199-N-46	Rad	Cesium-137	10045-97-3	7	0	7	0	pCi/L	2.0	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-46	Rad	Strontium-90	10098-97-2	9	9	0	100	pCi/L	--	--	870	1,730	0.22	1,442	95% Student's-t UCL	--
199-N-46	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	650	1,300	0.28	1,282	95% Student's-t UCL	--
199-N-50	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	154	207	0.13	207	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-50	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	8,500	29,200	0.37	29,200	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-50	non-Rad	Nitrite	14797-65-0	5	0	5	0	ug/L	125	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-50	Rad	Strontium-90	10098-97-2	4	1	3	25	pCi/L	0.96	1.9	0.73	0.73	0	0.73	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-50	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	2,600	5,500	0.29	5,500	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-51	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	147	147	0	147	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-51	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	24,200	24,200	0	24,200	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-51	non-Rad	Nitrite	14797-65-0	1	0	1	0	ug/L	125	125	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-51	Rad	Strontium-90	10098-97-2	5	0	5	0	pCi/L	0.64	1.1	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-51	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	690	3,820	0.55	3,820	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-52	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	44	44	0	44	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	31	31	0	31	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	200	200	0	200	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Hexavalent Chromiur	18540-29-9	1	0	1	0	ug/L	3.7	3.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Iron	7439-89-6	1	1	0	100	ug/L	--	--	150	150	0	150	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Manganese	7439-96-5	1	1	0	100	ug/L	--	--	5.0	5.0	0	5.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Nickel	7440-02-0	1	0	1	0	ug/L	67	67	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	32,300	32,300	0	32,300	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Nitrite	14797-65-0	1	0	1	0	ug/L	9.9	9.9	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	406	406	0	406	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Vanadium	7440-62-2	1	1	0	100	ug/L	--	--	22	22	0	22	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	non-Rad	Zinc	7440-66-6	1	0	1	0	ug/L	7.0	7.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-52	Rad	Strontium-90	10098-97-2	1	0	1	0	pCi/L	1.00	1.00	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	2-Butanone	78-93-3	7	0	7	0	ug/L	0.47	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-56	non-Rad	2-Propanol	67-63-0	1	1	0	100	ug/L	--	--	22	22	0	22	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Propanol was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Acenaphthene	83-32-9	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-56	non-Rad	Acetone	67-64-1	7	0	7	0	ug/L	0.34	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
199-N-56	non-Rad	Acetophenone	98-86-2	1	0	1	0	ug/L	0.96	0.96	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetophenone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Aluminum	7429-90-5	5	1	4	20	ug/L	15	15	39	39	0	39	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-56	non-Rad	Anthracene	120-12-7	10	0	10	0	ug/L	0.020	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-56	non-Rad	Antimony	7440-36-0	5	0	5	0	ug/L	1.0	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-56	non-Rad	Arsenic	7440-38-2	5	0	5	0	ug/L	1.2	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Arsenic was not processed!
199-N-56	non-Rad	Barium	7440-39-3	8	8	0	100	ug/L	--	--	75	141	0.17	128	95% Student's-t UCL	--
199-N-56	non-Rad	Benzo(a)anthracene	56-55-3	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-56	non-Rad	Benzo(a)pyrene	50-32-8	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-56	non-Rad	Beryllium	7440-41-7	5	0	5	0	ug/L	0.20	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-56	non-Rad	i(2-ethylhexyl) phthal	117-81-7	1	0	1	0	ug/L	1.8	1.8	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bis(2-ethylhexyl) phthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Boron	7440-42-8	5	5	0	100	ug/L	--	--	39	45	0.064	45	95% Student's-t UCL	--
199-N-56	non-Rad	romodichloromethar	75-27-4	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromodichloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-56	non-Rad	Bromomethane	74-83-9	1	0	1	0	ug/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Bromomethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Butylbenzylphthalate	85-68-7	1	0	1	0	ug/L	0.96	0.96	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Butylbenzylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Cadmium	7440-43-9	5	0	5	0	ug/L	0.10	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-56	non-Rad	Carbon tetrachloride	56-23-5	7	0	7	0	ug/L	0.13	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
199-N-56	non-Rad	Chloroform	67-66-3	7	7	0	100	ug/L	--	--	0.40	1.3	0.46	0.91	95% Student's-t UCL	--
199-N-56	non-Rad	Chloromethane	74-87-3	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloromethane was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Chromium	7440-47-3	8	6	2	75	ug/L	5.0	5.0	1.9	15	0.93	7.9	95% KM (t) UCL	--
199-N-56	non-Rad	Chrysene	218-01-9	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-56	non-Rad	Cobalt	7440-48-4	5	3	2	60	ug/L	0.10	0.22	0.11	0.44	0.61	0.36	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-56	non-Rad	Copper	7440-50-8	5	5	0	100	ug/L	--	--	0.49	1.6	0.43	1.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-56	non-Rad	Dibenz[a,h]anthracene	53-70-3	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-56	non-Rad	Diethylphthalate	84-66-2	1	0	1	0	ug/L	0.96	0.96	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Diethylphthalate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Ethylbenzene	100-41-4	7	0	7	0	ug/L	0.090	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
199-N-56	non-Rad	Fluoranthene	206-44-0	10	1	9	10	ug/L	0.029	0.96	0.036	0.036	0	0.036	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-56	non-Rad	Fluorene	86-73-7	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-56	non-Rad	Fluoride	16984-48-8	10	6	4	60	ug/L	33	66	57	74	0.099	66	95% KM (t) UCL	--
199-N-56	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-56	non-Rad	Iron	7439-89-6	8	3	5	38	ug/L	20	30	22	75	0.53	48	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-56	non-Rad	Lithium	7439-93-2	1	1	0	100	ug/L	--	--	5.9	5.9	0	5.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Lithium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-56	non-Rad	Manganese	7439-96-5	8	3	5	38	ug/L	1.0	4.0	1.6	4.3	0.56	2.6	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-56	non-Rad	Methylene chloride	75-09-2	7	1	6	14	ug/L	0.27	1.6	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
199-N-56	non-Rad	Molybdenum	7439-98-7	5	4	1	80	ug/L	1.0	1.0	0.31	0.48	0.18	0.47	95% KM (t) UCL	--
199-N-56	non-Rad	Naphthalene	91-20-3	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-56	non-Rad	Nickel	7440-02-0	8	5	3	63	ug/L	1.5	5.0	1.7	9.9	0.84	5.2	95% KM (t) UCL	--
199-N-56	non-Rad	Nitrate	14797-55-8	10	10	0	100	ug/L	--	--	71,700	97,400	0.092	89,109	95% Student's-t UCL	--
199-N-56	non-Rad	Nitrite	14797-65-0	10	1	9	10	ug/L	125	250	808	808	0	808	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-56	non-Rad	Pyrene	129-00-0	10	0	10	0	ug/L	0.029	0.96	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-56	non-Rad	Selenium	7782-49-2	5	3	2	60	ug/L	1.5	1.5	1.7	1.8	0.040	1.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-56	non-Rad	Silver	7440-22-4	5	0	5	0	ug/L	0.20	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-56	non-Rad	Strontium	7440-24-6	8	8	0	100	ug/L	--	--	624	872	0.13	790	95% Student's-t UCL	--
199-N-56	non-Rad	Tetrachloroethene	127-18-4	7	1	6	14	ug/L	0.18	0.30	0.33	0.33	0	0.33	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tetrachloroethene was not processed!
199-N-56	non-Rad	Thallium	7440-28-0	5	1	4	20	ug/L	0.45	0.45	0.56	0.56	0	0.56	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-56	non-Rad	Tin	7440-31-5	5	0	5	0	ug/L	1.0	1.1	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-56	non-Rad	Toluene	108-88-3	7	0	7	0	ug/L	0.070	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
199-N-56	non-Rad	Tributyl phosphate	126-73-8	1	0	1	0	ug/L	0.96	0.96	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tributyl phosphate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-56	non-Rad	Trichloroethene	79-01-6	7	0	7	0	ug/L	0.25	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
199-N-56	non-Rad	Uranium	7440-61-1	5	5	0	100	ug/L	--	--	5.1	8.9	0.20	8.7	95% Student's-t UCL	--
199-N-56	non-Rad	Vanadium	7440-62-2	8	5	3	63	ug/L	4.4	10	1.8	2.1	0.064	2.0	95% KM (t) UCL	--
199-N-56	non-Rad	Zinc	7440-66-6	8	6	2	75	ug/L	3.3	5.0	4.6	10	0.29	8.0	95% KM (t) UCL	--
199-N-56	Rad	Cesium-137	10045-97-3	3	0	3	0	pCi/L	5.4	14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-56	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	246	560	0.35	536	95% Student's-t UCL	--
199-N-56	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	2,590	3,700	0.16	3,589	95% Student's-t UCL	--
199-N-57	non-Rad	Acenaphthene	83-32-9	4	0	4	0	ug/L	0.033	0.61	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-57	non-Rad	Aluminum	7429-90-5	2	0	2	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.019	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-57	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Arsenic	7440-38-2	2	1	1	50	ug/L	1.7	1.7	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	70	97	0.13	97	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-57	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.029	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
199-N-57	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.050	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-57	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	16	20	0.18	20	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.11	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	8.6	63	0.90	46	95% Student's-t UCL	--
199-N-57	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.033	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-57	non-Rad	Cobalt	7440-48-4	2	2	0	100	ug/L	--	--	0.67	1.2	0.39	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	0.50	0.65	0.18	0.65	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	ɔibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.043	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-57	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.032	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-57	non-Rad	Fluorene	86-73-7	4	0	4	0	ug/L	0.030	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-57	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	89	160	0.25	160	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-57	non-Rad	ɪdeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.038	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-57	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	122	926	0.89	695	95% Student's-t UCL	--
199-N-57	non-Rad	Manganese	7439-96-5	5	5	0	100	ug/L	--	--	6.7	54	0.88	40	95% Student's-t UCL	--
199-N-57	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	1.0	1.1	0.080	1.1	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Naphthalene	91-20-3	4	1	3	25	ug/L	0.064	0.28	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-57	non-Rad	Nickel	7440-02-0	5	5	0	100	ug/L	--	--	114	394	0.49	368	95% Student's-t UCL	--
199-N-57	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	53,100	79,200	0.17	73,465	95% Student's-t UCL	--
199-N-57	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	20	131	325	325	0	325	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-57	non-Rad	Pyrene	129-00-0	4	0	4	0	ug/L	0.035	0.28	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-57	non-Rad	Selenium	7782-49-2	2	0	2	0	ug/L	1.5	2.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.20	0.40	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	371	572	0.15	571	95% Student's-t UCL	--
199-N-57	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.45	0.60	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-57	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	3.6	4.2	0.12	4.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	non-Rad	Vanadium	7440-62-2	5	2	3	40	ug/L	5.0	10	3.6	5.6	0.29	5.6	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-57	non-Rad	Zinc	7440-66-6	5	4	1	80	ug/L	17	17	4.9	11	0.33	10.0	95% KM (t) UCL	--
199-N-57	Rad	Carbon-14	14762-75-5	1	1	0	100	pCi/L	--	--	47	47	0	47	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon-14 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Cesium-137	10045-97-3	5	0	5	0	pCi/L	2.2	12	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-57	Rad	Plutonium-238	13981-16-3	1	0	1	0	pCi/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Plutonium-239/240	PU-239/240	1	0	1	0	pCi/L	0.25	0.25	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Plutonium-239/240 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	5.2	17	0.45	15	95% Student's-t UCL	--
199-N-57	Rad	Technetium-99	14133-76-7	1	0	1	0	pCi/L	39	39	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	1,140	2,700	0.30	2,494	95% Student's-t UCL	--
199-N-57	Rad	Uranium-233/234	U-233/234	1	1	0	100	pCi/L	--	--	2.3	2.3	0	2.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-233/234 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Uranium-235	15117-96-1	1	0	1	0	pCi/L	0.16	0.16	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-235 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-57	Rad	Uranium-238	U-238	1	1	0	100	pCi/L	--	--	1.5	1.5	0	1.5	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium-238 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Acenaphthene	83-32-9	4	0	4	0	ug/L	0.033	0.65	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acenaphthene was not processed!
199-N-64	non-Rad	Aluminum	7429-90-5	2	2	0	100	ug/L	--	--	41	69	0.36	69	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Anthracene	120-12-7	4	0	4	0	ug/L	0.019	0.047	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Anthracene was not processed!
199-N-64	non-Rad	Antimony	7440-36-0	2	1	1	50	ug/L	1.7	1.7	0.14	0.14	0	0.14	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	1.1	1.3	0.12	1.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	68	111	0.18	105	95% Student's-t UCL	--
199-N-64	non-Rad	Benzo(a)anthracene	56-55-3	4	0	4	0	ug/L	0.029	0.063	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-64	non-Rad	Benzo(a)pyrene	50-32-8	4	0	4	0	ug/L	0.047	0.075	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
199-N-64	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.27	0.35	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	14	21	0.27	21	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.099	0.10	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Chromium	7440-47-3	6	6	0	100	ug/L	--	--	8.2	11	0.11	10	95% Student's-t UCL	--
199-N-64	non-Rad	Chrysene	218-01-9	4	0	4	0	ug/L	0.033	0.047	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chrysene was not processed!
199-N-64	non-Rad	Cobalt	7440-48-4	2	1	1	50	ug/L	0.22	0.22	0.090	0.090	0	0.090	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Copper	7440-50-8	2	0	2	0	ug/L	0.68	1.1	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	›ibenz[a,h]anthracen	53-70-3	4	0	4	0	ug/L	0.044	0.15	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Dibenz(a,h)anthracene was not processed!
199-N-64	non-Rad	Fluoranthene	206-44-0	4	0	4	0	ug/L	0.032	0.18	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluoranthene was not processed!
199-N-64	non-Rad	Fluorene	86-73-7	4	0	4	0	ug/L	0.030	0.071	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Fluorene was not processed!
199-N-64	non-Rad	Fluoride	16984-48-8	6	4	2	67	ug/L	46	50	93	178	0.27	147	95% KM (t) UCL	--
199-N-64	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	4	0	4	0	ug/L	0.038	0.14	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
199-N-64	non-Rad	Iron	7439-89-6	6	6	0	100	ug/L	--	--	47	89	0.26	72	95% Student's-t UCL	--
199-N-64	non-Rad	Manganese	7439-96-5	6	3	3	50	ug/L	3.3	4.0	2.5	17	1.0	11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-64	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	1.2	1.5	0.16	1.5	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Naphthalene	91-20-3	4	0	4	0	ug/L	0.047	0.32	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Naphthalene was not processed!
199-N-64	non-Rad	Nickel	7440-02-0	6	5	1	83	ug/L	67	67	8.6	46	0.77	35	95% KM (t) UCL	--
199-N-64	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	2,930	80,600	0.53	78,415	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-64	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	125	250	14	14	0	14	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-64	non-Rad	Pyrene	129-00-0	4	0	4	0	ug/L	0.035	0.083	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Pyrene was not processed!
199-N-64	non-Rad	Selenium	7782-49-2	2	2	0	100	ug/L	--	--	3.0	3.2	0.046	3.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	379	566	0.15	532	95% Student's-t UCL	--
199-N-64	non-Rad	Thallium	7440-28-0	2	1	1	50	ug/L	0.014	0.014	0.94	0.94	0	0.94	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.1	1.3	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	2.9	3.2	0.070	3.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-64	non-Rad	Vanadium	7440-62-2	6	3	3	50	ug/L	4.1	10	4.1	5.1	0.11	4.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-64	non-Rad	Zinc	7440-66-6	6	0	6	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-64	Rad	Cesium-137	10045-97-3	5	0	5	0	pCi/L	1.7	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-64	Rad	Strontium-90	10098-97-2	5	1	4	20	pCi/L	0.80	2.0	3.0	3.0	0	3.0	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-64	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	4,240	11,700	0.36	10,262	95% Student's-t UCL	--
199-N-67	non-Rad	Aluminum	7429-90-5	3	3	0	100	ug/L	--	--	94	652	1.1	652	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Antimony	7440-36-0	3	3	0	100	ug/L	--	--	1.1	2.0	0.34	2.0	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Arsenic	7440-38-2	3	2	1	67	ug/L	1.7	1.7	1.8	2.0	0.060	2.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-67	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	45	169	0.36	151	95% Student's-t UCL	--
199-N-67	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-67	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	17	18	0.040	18	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-67	non-Rad	Cadmium	7440-43-9	3	3	0	100	ug/L	--	--	0.13	0.61	0.91	0.61	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Chromium	7440-47-3	7	6	1	86	ug/L	17	17	6.5	9.1	0.13	8.5	95% KM (t) UCL	--
199-N-67	non-Rad	Cobalt	7440-48-4	3	2	1	67	ug/L	0.10	0.10	0.15	0.93	1.0	0.93	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-67	non-Rad	Copper	7440-50-8	3	3	0	100	ug/L	--	--	2.6	27	1.2	27	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Fluoride	16984-48-8	6	4	2	67	ug/L	46	50	43	91	0.35	78	95% KM (t) UCL	--
199-N-67	non-Rad	Iron	7439-89-6	7	7	0	100	ug/L	--	--	95	1,310	1.1	1,265	95% Chebyshev (Mean, Sd) UCL	--
199-N-67	non-Rad	Manganese	7439-96-5	7	5	2	71	ug/L	4.0	4.0	3.1	49	1.0	31	95% KM (t) UCL	--
199-N-67	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	0.54	0.68	0.12	0.68	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Nickel	7440-02-0	7	3	4	43	ug/L	4.0	13	2.1	6.2	0.63	4.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-67	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	23,700	434,000	0.72	315,297	95% Student's-t UCL	--
199-N-67	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	20	131	193	193	0	193	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-67	non-Rad	Selenium	7782-49-2	3	1	2	33	ug/L	1.5	1.5	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-67	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-67	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	173	616	0.36	556	95% Student's-t UCL	--
199-N-67	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-67	non-Rad	Tin	7440-31-5	3	2	1	67	ug/L	1.0	1.0	1.2	1.6	0.21	1.6	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-67	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	4.4	4.7	0.038	4.7	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	non-Rad	Vanadium	7440-62-2	7	3	4	43	ug/L	5.0	22	1.4	2.9	0.42	2.9	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-67	non-Rad	Zinc	7440-66-6	7	6	1	86	ug/L	42	42	6.6	49	0.48	40	95% KM (t) UCL	--
199-N-67	Rad	Cesium-137	10045-97-3	4	1	3	25	pCi/L	6.1	14	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-67	Rad	Strontium-90	10098-97-2	7	7	0	100	pCi/L	--	--	10,300	15,500	0.15	13,653	95% Student's-t UCL	--
199-N-67	Rad	Technetium-99	14133-76-7	3	3	0	100	pCi/L	--	--	18	37	0.36	37	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-67	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	1,400	7,240	0.55	7,240	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-69	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	33	33	0	33	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-69	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.2	1.2	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	40	47	0.065	47	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-69	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	16	16	0	16	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Chromium	7440-47-3	4	3	1	75	ug/L	5.0	5.0	7.0	9.4	0.16	9.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-69	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.68	0.68	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	49	122	0.44	122	95% Student's-t UCL	--
199-N-69	non-Rad	Iron	7439-89-6	4	1	3	25	ug/L	19	30	30	30	0	30	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-69	non-Rad	Manganese	7439-96-5	4	1	3	25	ug/L	2.0	4.0	0.96	0.96	0	0.96	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-69	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Nickel	7440-02-0	4	1	3	25	ug/L	1.5	5.0	2.4	2.4	0	2.4	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-69	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	53,100	106,000	0.27	106,000	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-69	non-Rad	Nitrite	14797-65-0	4	2	2	50	ug/L	131	250	144	151	0.034	151	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-69	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	291	357	0.090	357	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-69	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-69	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.65	0.65	0	0.65	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-69	non-Rad	Vanadium	7440-62-2	4	2	2	50	ug/L	5.0	10	2.6	7.3	0.66	7.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-69	non-Rad	Zinc	7440-66-6	4	0	4	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-69	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	1.8	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-69	Rad	Strontium-90	10098-97-2	4	3	1	75	pCi/L	0.65	0.65	2.4	12	0.78	11	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-69	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	9,040	11,000	0.094	10,783	95% Student's-t UCL	--
199-N-70	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	5.1	5.1	0	5.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	36	38	0.021	37	95% Student's-t UCL	--
199-N-70	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	20	20	0	20	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Chromium	7440-47-3	4	4	0	100	ug/L	--	--	13	18	0.15	18	95% Student's-t UCL	--
199-N-70	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Copper	7440-50-8	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Fluoride	16984-48-8	4	3	1	75	ug/L	46	46	133	153	0.073	153	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-70	non-Rad	Iron	7439-89-6	4	2	2	50	ug/L	19	30	22	26	0.13	26	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-70	non-Rad	Manganese	7439-96-5	4	0	4	0	ug/L	1.0	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-70	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-70	non-Rad	Nickel	7440-02-0	4	2	2	50	ug/L	4.0	5.0	2.2	5.4	0.59	5.4	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-70	non-Rad	Nitrate	14797-55-8	4	4	0	100	ug/L	--	--	27,900	30,700	0.042	30,525	95% Student's-t UCL	--
199-N-70	non-Rad	Nitrite	14797-65-0	4	1	3	25	ug/L	125	250	135	135	0	135	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-70	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	306	360	0.069	357	95% Student's-t UCL	--
199-N-70	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-70	non-Rad	Vanadium	7440-62-2	4	4	0	100	ug/L	--	--	12	15	0.092	15	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-70	non-Rad	Zinc	7440-66-6	4	2	2	50	ug/L	3.5	5.0	5.2	13	0.60	13	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-70	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	1.5	13	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-70	Rad	Strontium-90	10098-97-2	4	2	2	50	pCi/L	0.90	1.4	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-70	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	7,800	13,000	0.22	12,577	95% Student's-t UCL	--
199-N-71	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Aluminum	7429-90-5	19	3	16	16	ug/L	5.0	20	19	35	0.30	13	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
199-N-71	non-Rad	Anthracene	120-12-7	1	1	0	100	ug/L	--	--	0.053	0.053	0	0.053	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Antimony	7440-36-0	19	2	17	11	ug/L	0.084	1.7	0.11	0.17	0.30	0.17	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since the Frequency of Detects < 20% and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-71	non-Rad	Arsenic	7440-38-2	19	18	1	95	ug/L	1.7	1.7	4.1	6.4	0.11	5.2	95% KM (t) UCL	--
199-N-71	non-Rad	Barium	7440-39-3	19	19	0	100	ug/L	--	--	26	36	0.11	32	95% Student's-t UCL	--
199-N-71	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-71	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Beryllium	7440-41-7	19	2	17	11	ug/L	0.10	0.35	0.49	0.59	0.13	0.22	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-71	non-Rad	Boron	7440-42-8	12	9	3	75	ug/L	6.4	11	7.9	38	0.71	16	95% KM (t) UCL	--
199-N-71	non-Rad	Cadmium	7440-43-9	19	1	18	5.3	ug/L	0.050	0.13	0.12	0.12	0	0.12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-71	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	2.3	2.3	0	2.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Chromium	7440-47-3	19	19	0	100	ug/L	--	--	8.7	63	0.62	24	95% Adjusted Gamma UCL	--
199-N-71	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Cobalt	7440-48-4	19	14	5	74	ug/L	0.10	0.22	0.085	0.83	0.72	0.29	95% KM (t) UCL	--
199-N-71	non-Rad	Copper	7440-50-8	19	16	3	84	ug/L	0.68	2.0	0.28	3.6	0.84	1.4	95% KM Adjusted Gamma UCL	--
199-N-71	non-Rad	Dibenz[a,h]anthracene	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Fluoride	16984-48-8	10	10	0	100	ug/L	--	--	143	270	0.18	249	95% Student's-t UCL	--
199-N-71	non-Rad	Hexavalent Chromium	18540-29-9	19	14	5	74	ug/L	2.0	8.0	3.2	5.1	0.17	4.0	95% KM (t) UCL	--
199-N-71	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Iron	7439-89-6	12	12	0	100	ug/L	--	--	36	250	0.65	149	95% Adjusted Gamma UCL	--
199-N-71	non-Rad	Manganese	7439-96-5	15	12	3	80	ug/L	4.0	4.0	1.4	17	1.2	7.9	95% KM (Chebyshev) UCL	--
199-N-71	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Molybdenum	7439-98-7	19	19	0	100	ug/L	--	--	2.6	4.0	0.10	3.3	95% Student's-t UCL	--
199-N-71	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Nickel	7440-02-0	15	13	2	87	ug/L	4.0	5.0	5.0	32	0.67	13	95% KM (t) UCL	--
199-N-71	non-Rad	Nitrate	14797-55-8	10	10	0	100	ug/L	--	--	10,600	12,800	0.084	12,270	95% Student's-t UCL	--
199-N-71	non-Rad	Nitrite	14797-65-0	10	1	9	10	ug/L	20	250	172	172	0	172	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-71	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Selenium	7782-49-2	19	6	13	32	ug/L	0.66	2.0	0.89	3.1	0.44	1.5	95% KM (t) UCL	--
199-N-71	non-Rad	Silver	7440-22-4	19	4	15	21	ug/L	0.050	0.82	0.050	0.17	0.59	0.089	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-71	non-Rad	Strontium	7440-24-6	15	15	0	100	ug/L	--	--	205	283	0.097	249	95% Student's-t UCL	--
199-N-71	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Thallium	7440-28-0	19	4	15	21	ug/L	0.014	0.55	0.020	0.93	1.1	0.22	95% KM (t) UCL	--
199-N-71	non-Rad	Tin	7440-31-5	19	7	12	37	ug/L	0.050	1.1	0.15	7.5	1.1	1.7	95% KM (t) UCL	--
199-N-71	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-71	non-Rad	Uranium	7440-61-1	12	12	0	100	ug/L	--	--	2.2	3.0	0.093	2.8	95% Student's-t UCL	--
199-N-71	non-Rad	Vanadium	7440-62-2	13	13	0	100	ug/L	--	--	15	23	0.11	20	95% Student's-t UCL	--
199-N-71	non-Rad	Zinc	7440-66-6	15	2	13	13	ug/L	3.5	9.3	4.4	8.5	0.46	5.6	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-71	Rad	Carbon-14	14762-75-5	5	4	1	80	pCi/L	50	50	13	26	0.27	26	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-71	Rad	Strontium-90	10098-97-2	5	1	4	20	pCi/L	0.41	1.1	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Strontium-90 was not processed!
199-N-71	Rad	Technetium-99	14133-76-7	5	0	5	0	pCi/L	5.6	9.9	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Technetium-99 was not processed!
199-N-71	Rad	Tritium	10028-17-8	16	14	2	88	pCi/L	307	322	471	940	0.23	669	95% KM (t) UCL	--
199-N-72	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.020	0.020	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	16	35	0.28	34	95% Student's-t UCL	--
199-N-72	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	4.3	4.3	0	4.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Chromium	7440-47-3	6	5	1	83	ug/L	17	17	6.7	15	0.35	13	95% KM (t) UCL	--
199-N-72	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-72	non-Rad	›ibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	512	668	0.093	635	95% Student's-t UCL	--
199-N-72	non-Rad	›deno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Iron	7439-89-6	6	6	0	100	ug/L	--	--	27	255	0.80	188	95% Student's-t UCL	--
199-N-72	non-Rad	Manganese	7439-96-5	6	2	4	33	ug/L	2.0	4.0	2.1	5.0	0.57	5.0	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-72	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Nickel	7440-02-0	6	3	3	50	ug/L	4.0	13	3.1	8.2	0.44	7.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-72	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	37,600	60,200	0.17	52,959	95% Student's-t UCL	--
199-N-72	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	20	131	193	193	0	193	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-72	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	72	165	0.39	165	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-72	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-72	non-Rad	Vanadium	7440-62-2	6	5	1	83	ug/L	22	22	12	28	0.33	25	95% KM (t) UCL	--
199-N-72	non-Rad	Zinc	7440-66-6	6	1	5	17	ug/L	3.3	42	18	18	0	18	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-73	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-73	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	698	698	0	698	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.020	0.020	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	5.2	5.2	0	5.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	13	36	0.38	31	95% Student's-t UCL	--
199-N-73	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	7.2	7.2	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	5.0	5.0	0	5.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Chromium	7440-47-3	6	6	0	100	ug/L	--	--	5.2	18	0.54	13	95% Student's-t UCL	--
199-N-73	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Cobalt	7440-48-4	1	1	0	100	ug/L	--	--	0.42	0.42	0	0.42	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	1.7	1.7	0	1.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	ibenz[a,h]anthracen	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-73	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	330	642	0.28	581	95% Student's-t UCL	--
199-N-73	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Iron	7439-89-6	6	5	1	83	ug/L	19	19	28	682	1.7	682	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-73	non-Rad	Manganese	7439-96-5	6	1	5	17	ug/L	0.70	4.0	15	15	0	15	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-73	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	5.8	5.8	0	5.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Nickel	7440-02-0	6	3	3	50	ug/L	4.0	5.0	1.6	9.2	1.0	5.8	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-73	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	26,700	62,000	0.32	53,985	95% Student's-t UCL	--
199-N-73	non-Rad	Nitrite	14797-65-0	6	1	5	17	ug/L	125	250	205	205	0	205	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-73	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	55	157	0.38	151	95% Student's-t UCL	--
199-N-73	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	1.3	1.3	0	1.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-73	non-Rad	Vanadium	7440-62-2	6	6	0	100	ug/L	--	--	12	15	0.079	15	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-73	non-Rad	Zinc	7440-66-6	6	0	6	0	ug/L	3.0	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-73	Rad	Tritium	10028-17-8	1	1	0	100	pCi/L	--	--	551	551	0	551	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tritium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	5.9	5.9	0	5.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	30	34	0.041	33	95% Student's-t UCL	--
199-N-74	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	42	57	0.12	55	95% Student's-t UCL	--
199-N-74	non-Rad	Cobalt	7440-48-4	1	1	0	100	ug/L	--	--	0.20	0.20	0	0.20	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	1.0	1.0	0	1.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Fluoride	16984-48-8	5	5	0	100	ug/L	--	--	158	260	0.17	253	95% Student's-t UCL	--
199-N-74	non-Rad	Hexavalent Chromiur	18540-29-9	4	4	0	100	ug/L	--	--	34	41	0.090	41	95% Student's-t UCL	--
199-N-74	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	50	83	0.19	75	95% Student's-t UCL	--
199-N-74	non-Rad	Manganese	7439-96-5	5	2	3	40	ug/L	2.0	4.0	1.6	2.2	0.22	2.2	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-74	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	4.7	4.7	0	4.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Nickel	7440-02-0	5	3	2	60	ug/L	4.0	5.0	5.5	9.2	0.26	9.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-74	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	17,500	21,200	0.077	20,094	95% Student's-t UCL	--
199-N-74	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	20	131	233	233	0	233	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-74	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	319	340	0.027	340	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-74	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	2.2	2.2	0	2.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	non-Rad	Vanadium	7440-62-2	5	5	0	100	ug/L	--	--	14	22	0.16	21	95% Student's-t UCL	--
199-N-74	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.3	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-74	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	3.1	15	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-74	Rad	Strontium-90	10098-97-2	1	0	1	0	pCi/L	1.4	1.4	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium-90 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-74	Rad	Tritium	10028-17-8	5	4	1	80	pCi/L	326	326	7,330	8,300	0.056	8,300	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-75	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	14	17	40	40	0	40	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-75	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	0.084	1.7	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-75	non-Rad	Arsenic	7440-38-2	3	1	2	33	ug/L	1.2	1.2	0.56	0.56	0	0.56	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Arsenic was not processed!
199-N-75	non-Rad	Barium	7440-39-3	7	7	0	100	ug/L	--	--	54	82	0.15	68	95% Student's-t UCL	--
199-N-75	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.27	0.35	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-75	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	10	15	0.20	15	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-75	non-Rad	Cadmium	7440-43-9	3	1	2	33	ug/L	0.099	0.10	0.13	0.13	0	0.13	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-75	non-Rad	Chromium	7440-47-3	7	4	3	57	ug/L	5.0	5.0	2.5	4.5	0.27	4.1	95% KM (t) UCL	--
199-N-75	non-Rad	Cobalt	7440-48-4	3	0	3	0	ug/L	0.070	0.22	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-75	non-Rad	Copper	7440-50-8	3	1	2	33	ug/L	0.68	1.1	0.91	0.91	0	0.91	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-N-75	non-Rad	Fluoride	16984-48-8	8	5	3	63	ug/L	46	50	67	100	0.16	88	95% KM (t) UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-75	non-Rad	Iron	7439-89-6	7	1	6	14	ug/L	13	40	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Iron was not processed!
199-N-75	non-Rad	Manganese	7439-96-5	7	1	6	14	ug/L	0.88	4.0	0.98	0.98	0	0.98	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-75	non-Rad	Molybdenum	7439-98-7	3	1	2	33	ug/L	1.0	1.0	0.72	0.72	0	0.72	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-75	non-Rad	Nickel	7440-02-0	7	0	7	0	ug/L	0.80	10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
199-N-75	non-Rad	Nitrate	14797-55-8	8	8	0	100	ug/L	--	--	49,100	75,300	0.13	72,316	95% Student's-t UCL	--
199-N-75	non-Rad	Nitrite	14797-65-0	8	1	7	13	ug/L	125	250	253	253	0	253	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-75	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	1.6	3.4	0.37	3.4	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-75	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.039	0.82	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-75	non-Rad	Strontium	7440-24-6	7	7	0	100	ug/L	--	--	278	411	0.13	361	95% Student's-t UCL	--
199-N-75	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.014	0.55	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-75	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.1	1.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-75	non-Rad	Uranium	7440-61-1	4	4	0	100	ug/L	--	--	0.45	0.73	0.19	0.73	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-75	non-Rad	Vanadium	7440-62-2	7	2	5	29	ug/L	4.4	10	1.5	2.3	0.28	2.3	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-75	non-Rad	Zinc	7440-66-6	7	0	7	0	ug/L	3.3	9.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-75	Rad	Strontium-90	10098-97-2	7	7	0	100	pCi/L	--	--	2,140	3,200	0.16	2,913	95% Student's-t UCL	--
199-N-75	Rad	Tritium	10028-17-8	7	7	0	100	pCi/L	--	--	7,600	11,000	0.13	9,874	95% Student's-t UCL	--
199-N-76	non-Rad	Aluminum	7429-90-5	3	1	2	33	ug/L	15	15	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-76	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-76	non-Rad	Arsenic	7440-38-2	3	1	2	33	ug/L	1.7	1.7	1.8	1.8	0	1.8	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Arsenic was not processed!
199-N-76	non-Rad	Barium	7440-39-3	9	9	0	100	ug/L	--	--	39	49	0.064	46	95% Student's-t UCL	--
199-N-76	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-76	non-Rad	Boron	7440-42-8	3	3	0	100	ug/L	--	--	17	24	0.19	24	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-76	non-Rad	Cadmium	7440-43-9	3	0	3	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-76	non-Rad	Chromium	7440-47-3	9	9	0	100	ug/L	--	--	6.7	9.1	0.11	8.4	95% Student's-t UCL	--
199-N-76	non-Rad	Cobalt	7440-48-4	3	0	3	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-76	non-Rad	Copper	7440-50-8	3	1	2	33	ug/L	0.35	0.35	0.51	0.51	0	0.51	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Copper was not processed!
199-N-76	non-Rad	Fluoride	16984-48-8	10	5	5	50	ug/L	46	50	71	140	0.29	89	95% KM (t) UCL	--
199-N-76	non-Rad	Iron	7439-89-6	9	8	1	89	ug/L	40	40	28	108	0.56	82	95% KM Adjusted Gamma UCL	--
199-N-76	non-Rad	Manganese	7439-96-5	9	4	5	44	ug/L	4.0	4.0	1.2	1.5	0.071	1.4	95% KM (t) UCL	--
199-N-76	non-Rad	Molybdenum	7439-98-7	3	3	0	100	ug/L	--	--	0.51	0.71	0.17	0.71	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-76	non-Rad	Nickel	7440-02-0	9	5	4	56	ug/L	4.0	10	2.1	4.7	0.31	4.2	95% KM (t) UCL	--
199-N-76	non-Rad	Nitrate	14797-55-8	10	10	0	100	ug/L	--	--	71,700	128,000	0.17	106,094	95% Student's-t UCL	--
199-N-76	non-Rad	Nitrite	14797-65-0	10	0	10	0	ug/L	125	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-76	non-Rad	Selenium	7782-49-2	3	3	0	100	ug/L	--	--	4.4	5.6	0.13	5.6	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-76	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-76	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	300	385	0.081	354	95% Student's-t UCL	--
199-N-76	non-Rad	Thallium	7440-28-0	3	1	2	33	ug/L	0.45	0.45	0.46	0.46	0	0.46	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-76	non-Rad	Tin	7440-31-5	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-76	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	0.49	0.56	0.075	0.56	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-76	non-Rad	Vanadium	7440-62-2	9	3	6	33	ug/L	4.4	10	2.4	2.6	0.054	2.6	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-76	non-Rad	Zinc	7440-66-6	9	2	7	22	ug/L	3.5	5.0	7.4	9.1	0.15	6.3	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-76	Rad	Cesium-137	10045-97-3	9	0	9	0	pCi/L	2.8	13	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-76	Rad	Strontium-90	10098-97-2	10	10	0	100	pCi/L	--	--	156	2,100	1.2	968	95% Adjusted Gamma UCL	--
199-N-76	Rad	Tritium	10028-17-8	10	10	0	100	pCi/L	--	--	9,440	14,000	0.14	11,629	95% Modified-t UCL	--
199-N-76	Rad	Uranium-233/234	U-233/234	4	2	2	50	pCi/L	0.16	0.72	0.21	0.26	0.15	0.26	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-76	Rad	Uranium-235	15117-96-1	4	0	4	0	pCi/L	0.071	0.31	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Uranium-235 was not processed!
199-N-76	Rad	Uranium-238	U-238	4	3	1	75	pCi/L	0.55	0.55	0.17	0.22	0.13	0.22	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-77	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Acenaphthene	83-32-9	1	0	1	0	ug/L	0.65	0.65	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acenaphthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Anthracene	120-12-7	1	0	1	0	ug/L	0.020	0.020	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	9.8	26	0.32	21	95% Student's-t UCL	--
199-N-77	non-Rad	Benzo(a)anthracene	56-55-3	1	0	1	0	ug/L	0.063	0.063	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Benzo(a)pyrene	50-32-8	1	0	1	0	ug/L	0.075	0.075	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Benzo(a)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	4.9	4.9	0	4.9	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Chromium	7440-47-3	6	6	0	100	ug/L	--	--	6.6	13	0.27	13	95% Student's-t UCL	--
199-N-77	non-Rad	Chrysene	218-01-9	1	0	1	0	ug/L	0.035	0.035	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chrysene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Dibenz[a,h]anthracene	53-70-3	1	0	1	0	ug/L	0.15	0.15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Dibenz(a,h)anthracene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Fluoranthene	206-44-0	1	0	1	0	ug/L	0.18	0.18	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoranthene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-77	non-Rad	Fluorene	86-73-7	1	0	1	0	ug/L	0.071	0.071	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluorene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Fluoride	16984-48-8	6	6	0	100	ug/L	--	--	480	632	0.095	609	95% Student's-t UCL	--
199-N-77	non-Rad	ıdeno(1,2,3-cd)pyrer	193-39-5	1	0	1	0	ug/L	0.14	0.14	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Indeno(1,2,3-cd)pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Iron	7439-89-6	6	5	1	83	ug/L	30	30	26	168	1.0	156	95% KM (Chebyshev) UCL	--
199-N-77	non-Rad	Manganese	7439-96-5	6	0	6	0	ug/L	0.70	4.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Manganese was not processed!
199-N-77	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Naphthalene	91-20-3	1	0	1	0	ug/L	0.34	0.34	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Naphthalene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Nickel	7440-02-0	6	6	0	100	ug/L	--	--	1.6	16	0.80	11	95% Student's-t UCL	--
199-N-77	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	22,100	40,300	0.22	37,300	95% Student's-t UCL	--
199-N-77	non-Rad	Nitrite	14797-65-0	6	0	6	0	ug/L	125	250	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-77	non-Rad	Pyrene	129-00-0	1	0	1	0	ug/L	0.083	0.083	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Pyrene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Strontium	7440-24-6	3	3	0	100	ug/L	--	--	61	94	0.21	94	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-77	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Trichloroethene	79-01-6	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-77	non-Rad	Vanadium	7440-62-2	6	6	0	100	ug/L	--	--	27	43	0.21	42	95% Student's-t UCL	--
199-N-77	non-Rad	Zinc	7440-66-6	6	1	5	17	ug/L	3.0	8.3	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!
199-N-80	non-Rad	Aluminum	7429-90-5	2	0	2	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Antimony	7440-36-0	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Arsenic	7440-38-2	2	2	0	100	ug/L	--	--	5.2	8.3	0.32	8.3	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	27	32	0.065	30	95% Student's-t UCL	--
199-N-80	non-Rad	Beryllium	7440-41-7	2	0	2	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-80	non-Rad	Boron	7440-42-8	2	2	0	100	ug/L	--	--	24	25	0.032	25	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Cadmium	7440-43-9	2	0	2	0	ug/L	0.11	0.30	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	120	204	0.19	200	95% Student's-t UCL	--
199-N-80	non-Rad	Cobalt	7440-48-4	2	2	0	100	ug/L	--	--	0.14	0.18	0.21	0.18	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Copper	7440-50-8	2	2	0	100	ug/L	--	--	0.77	1.2	0.29	1.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Fluoride	16984-48-8	3	3	0	100	ug/L	--	--	199	303	0.22	303	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-80	non-Rad	Hexavalent Chromiur	18540-29-9	5	5	0	100	ug/L	--	--	110	182	0.22	182	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-80	non-Rad	Iron	7439-89-6	5	3	2	60	ug/L	30	30	41	84	0.40	69	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-80	non-Rad	Manganese	7439-96-5	5	2	3	40	ug/L	1.0	4.0	1.2	1.8	0.27	1.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-80	non-Rad	Molybdenum	7439-98-7	2	2	0	100	ug/L	--	--	13	13	0.027	13	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Nickel	7440-02-0	5	4	1	80	ug/L	5.0	5.0	3.5	6.7	0.28	6.1	95% KM (t) UCL	--
199-N-80	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	10,400	11,100	0.033	11,100	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-80	non-Rad	Nitrite	14797-65-0	3	1	2	33	ug/L	20	131	204	204	0	204	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-80	non-Rad	Selenium	7782-49-2	2	1	1	50	ug/L	2.0	2.0	1.9	1.9	0	1.9	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Silver	7440-22-4	2	0	2	0	ug/L	0.20	0.40	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Strontium	7440-24-6	5	5	0	100	ug/L	--	--	392	425	0.036	425	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-80	non-Rad	Thallium	7440-28-0	2	0	2	0	ug/L	0.45	0.60	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Tin	7440-31-5	2	0	2	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Uranium	7440-61-1	2	2	0	100	ug/L	--	--	3.8	4.2	0.066	4.2	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-80	non-Rad	Vanadium	7440-62-2	5	4	1	80	ug/L	10	10	10	16	0.17	15	95% KM (t) UCL	--
199-N-80	non-Rad	Zinc	7440-66-6	5	0	5	0	ug/L	3.5	8.3	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Zinc was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-80	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	2.8	15	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-80	Rad	Strontium-90	10098-97-2	5	2	3	40	pCi/L	0.99	1.4	1.5	1.7	0.076	1.6	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-80	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	7,250	13,000	0.21	12,348	95% Student's-t UCL	--
199-N-81	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	113	113	0	113	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Arsenic	7440-38-2	1	1	0	100	ug/L	--	--	2.7	2.7	0	2.7	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Barium	7440-39-3	5	5	0	100	ug/L	--	--	46	63	0.13	62	95% Adjusted Gamma UCL	--
199-N-81	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.35	0.35	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	24	24	0	24	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Chromium	7440-47-3	5	5	0	100	ug/L	--	--	8.9	18	0.26	16	95% Student's-t UCL	--
199-N-81	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.22	0.22	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	0.85	0.85	0	0.85	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Fluoride	16984-48-8	5	4	1	80	ug/L	46	46	77	149	0.26	143	95% KM (t) UCL	--
199-N-81	non-Rad	Iron	7439-89-6	5	5	0	100	ug/L	--	--	30	1,280	1.8	1,280	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-81	non-Rad	Manganese	7439-96-5	5	4	1	80	ug/L	4.0	4.0	2.1	59	1.7	59	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-81	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	1.1	1.1	0	1.1	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Nickel	7440-02-0	5	3	2	60	ug/L	1.6	5.0	2.3	5.4	0.40	5.0	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-81	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	46,500	53,100	0.053	52,104	95% Student's-t UCL	--
199-N-81	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	125	250	129	129	0	129	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-81	non-Rad	Selenium	7782-49-2	1	1	0	100	ug/L	--	--	1.8	1.8	0	1.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.82	0.82	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	335	421	0.094	417	95% Student's-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-81	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.55	0.55	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.1	1.1	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	2.3	2.3	0	2.3	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-81	non-Rad	Vanadium	7440-62-2	5	4	1	80	ug/L	10	10	7.2	9.3	0.10	9.3	95% KM (t) UCL	--
199-N-81	non-Rad	Zinc	7440-66-6	5	2	3	40	ug/L	3.0	9.3	3.9	6.1	0.31	6.0	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
199-N-81	Rad	Cesium-137	10045-97-3	3	0	3	0	pCi/L	5.3	20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
199-N-81	Rad	Strontium-90	10098-97-2	5	5	0	100	pCi/L	--	--	450	513	0.048	507	95% Student's-t UCL	--
199-N-81	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	7,610	11,000	0.14	10,588	95% Student's-t UCL	--
199-N-92A	non-Rad	Aluminum	7429-90-5	4	1	3	25	ug/L	15	15	53	53	0	53	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aluminum was not processed!
199-N-92A	non-Rad	Antimony	7440-36-0	3	0	3	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Antimony was not processed!
199-N-92A	non-Rad	Arsenic	7440-38-2	3	1	2	33	ug/L	1.7	1.7	2.3	2.3	0	2.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Arsenic was not processed!
199-N-92A	non-Rad	Barium	7440-39-3	9	9	0	100	ug/L	--	--	20	55	0.28	42	95% Student's-t UCL	--
199-N-92A	non-Rad	Beryllium	7440-41-7	3	0	3	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Beryllium was not processed!
199-N-92A	non-Rad	Boron	7440-42-8	3	1	2	33	ug/L	15	15	16	16	0	16	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Boron was not processed!
199-N-92A	non-Rad	Cadmium	7440-43-9	3	0	3	0	ug/L	0.11	0.30	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cadmium was not processed!
199-N-92A	non-Rad	Chromium	7440-47-3	9	7	2	78	ug/L	2.0	5.0	2.4	14	0.71	8.6	95% KM (t) UCL	--
199-N-92A	non-Rad	Cobalt	7440-48-4	3	0	3	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cobalt was not processed!
199-N-92A	non-Rad	Copper	7440-50-8	3	2	1	67	ug/L	0.35	0.35	0.90	7.3	1.1	7.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-92A	non-Rad	Fluoride	16984-48-8	7	5	2	71	ug/L	46	50	65	110	0.19	103	95% KM (t) UCL	--
199-N-92A	non-Rad	Iron	7439-89-6	9	6	3	67	ug/L	30	30	46	224	0.48	142	95% KM (t) UCL	--
199-N-92A	non-Rad	Manganese	7439-96-5	9	6	3	67	ug/L	1.0	2.0	1.6	13	0.65	8.3	95% KM (t) UCL	--
199-N-92A	non-Rad	Molybdenum	7439-98-7	7	3	4	43	ug/L	1.9	4.0	0.60	0.74	0.10	0.74	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-92A	non-Rad	Nickel	7440-02-0	9	4	5	44	ug/L	0.50	10	0.74	9.3	0.97	4.9	95% KM (t) UCL	--
199-N-92A	non-Rad	Nitrate	14797-55-8	7	7	0	100	ug/L	--	--	12,800	40,700	0.39	34,386	95% Student's-t UCL	--
199-N-92A	non-Rad	Nitrite	14797-65-0	7	0	7	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-92A	non-Rad	Selenium	7782-49-2	3	1	2	33	ug/L	1.5	2.0	2.5	2.5	0	2.5	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Selenium was not processed!
199-N-92A	non-Rad	Silver	7440-22-4	3	0	3	0	ug/L	0.20	0.40	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Silver was not processed!
199-N-92A	non-Rad	Strontium	7440-24-6	9	9	0	100	ug/L	--	--	118	245	0.22	206	95% Student's-t UCL	--
199-N-92A	non-Rad	Thallium	7440-28-0	3	0	3	0	ug/L	0.45	0.60	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Thallium was not processed!
199-N-92A	non-Rad	Tin	7440-31-5	3	1	2	33	ug/L	1.0	1.0	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tin was not processed!
199-N-92A	non-Rad	Uranium	7440-61-1	3	3	0	100	ug/L	--	--	0.28	0.40	0.18	0.40	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-92A	non-Rad	Vanadium	7440-62-2	9	6	3	67	ug/L	4.4	10	3.1	5.4	0.18	4.8	95% KM (t) UCL	--
199-N-92A	non-Rad	Zinc	7440-66-6	9	7	2	78	ug/L	3.3	3.5	5.3	23	0.40	18	95% KM (t) UCL	--
199-N-92A	Rad	Strontium-90	10098-97-2	8	2	6	25	pCi/L	1.0	1.7	0.63	1.3	0.50	1.3	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
199-N-92A	Rad	Tritium	10028-17-8	5	5	0	100	pCi/L	--	--	3,600	9,550	0.40	9,484	95% Student's-t UCL	--
199-N-99A	non-Rad	Aluminum	7429-90-5	1	1	0	100	ug/L	--	--	154	154	0	154	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	1.7	1.7	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Barium	7440-39-3	6	6	0	100	ug/L	--	--	35	54	0.17	52	95% Student's-t UCL	--
199-N-99A	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Boron	7440-42-8	1	0	1	0	ug/L	15	15	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Cadmium	7440-43-9	1	0	1	0	ug/L	0.11	0.11	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Chromium	7440-47-3	6	4	2	67	ug/L	5.0	5.0	3.4	8.5	0.36	7.5	95% KM (t) UCL	--
199-N-99A	non-Rad	Cobalt	7440-48-4	1	1	0	100	ug/L	--	--	0.10	0.10	0	0.10	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	13	13	0	13	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
199-N-99A	non-Rad	Fluoride	16984-48-8	6	3	3	50	ug/L	46	50	73	96	0.14	86	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-99A	non-Rad	Iron	7439-89-6	6	6	0	100	ug/L	--	--	74	164	0.33	153	95% Student's-t UCL	--
199-N-99A	non-Rad	Manganese	7439-96-5	6	5	1	83	ug/L	4.0	4.0	5.7	7.2	0.094	7.0	95% KM (t) UCL	--
199-N-99A	non-Rad	Molybdenum	7439-98-7	4	1	3	25	ug/L	1.9	4.0	0.62	0.62	0	0.62	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Molybdenum was not processed!
199-N-99A	non-Rad	Nickel	7440-02-0	6	3	3	50	ug/L	2.6	10	0.71	5.9	0.72	5.5	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
199-N-99A	non-Rad	Nitrate	14797-55-8	6	6	0	100	ug/L	--	--	7,970	66,400	0.47	60,035	95% Student's-t UCL	--
199-N-99A	non-Rad	Nitrite	14797-65-0	6	0	6	0	ug/L	20	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
199-N-99A	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	1.5	1.5	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Strontium	7440-24-6	6	6	0	100	ug/L	--	--	104	250	0.31	231	95% Student's-t UCL	--
199-N-99A	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.45	0.45	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Tin	7440-31-5	1	0	1	0	ug/L	1.0	1.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.54	0.54	0	0.54	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
199-N-99A	non-Rad	Vanadium	7440-62-2	6	1	5	17	ug/L	4.4	10	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Vanadium was not processed!
199-N-99A	non-Rad	Zinc	7440-66-6	6	6	0	100	ug/L	--	--	15	33	0.32	27	95% Student's-t UCL	--
199-N-99A	Rad	Strontium-90	10098-97-2	4	4	0	100	pCi/L	--	--	640	1,600	0.36	1,600	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
199-N-99A	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	1,200	8,530	0.56	8,530	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-73-61	non-Rad	Aluminum	7429-90-5	1	0	1	0	ug/L	20	20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Aluminum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Antimony	7440-36-0	1	0	1	0	ug/L	0.60	0.60	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Antimony was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Arsenic	7440-38-2	1	0	1	0	ug/L	0.40	0.40	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Arsenic was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	25	25	0	25	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Beryllium	7440-41-7	1	0	1	0	ug/L	0.20	0.20	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Beryllium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-73-61	non-Rad	Boron	7440-42-8	1	1	0	100	ug/L	--	--	8.0	8.0	0	8.0	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Boron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Cadmium	7440-43-9	1	1	0	100	ug/L	--	--	0.11	0.11	0	0.11	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cadmium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	0.83	0.83	0	0.83	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Cobalt	7440-48-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Cobalt was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Copper	7440-50-8	1	1	0	100	ug/L	--	--	1.2	1.2	0	1.2	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Copper was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	240	240	0	240	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Hexavalent Chromiur	18540-29-9	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Iron	7439-89-6	1	1	0	100	ug/L	--	--	111	111	0	111	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Manganese	7439-96-5	1	1	0	100	ug/L	--	--	12	12	0	12	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Mercury	7439-97-6	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Mercury was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Molybdenum	7439-98-7	1	1	0	100	ug/L	--	--	2.8	2.8	0	2.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Molybdenum was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Nickel	7440-02-0	1	1	0	100	ug/L	--	--	0.82	0.82	0	0.82	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Nitrate	14797-55-8	1	1	0	100	ug/L	--	--	7,970	7,970	0	7,970	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Nitrite	14797-65-0	1	1	0	100	ug/L	--	--	30	30	0	30	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Selenium	7782-49-2	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Selenium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Silver	7440-22-4	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Silver was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	171	171	0	171	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Thallium	7440-28-0	1	0	1	0	ug/L	0.10	0.10	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Thallium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Tin	7440-31-5	1	1	0	100	ug/L	--	--	0.10	0.10	0	0.10	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tin was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-73-61	non-Rad	Uranium	7440-61-1	1	1	0	100	ug/L	--	--	0.12	0.12	0	0.12	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Uranium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Vanadium	7440-62-2	1	1	0	100	ug/L	--	--	0.63	0.63	0	0.63	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	non-Rad	Zinc	7440-66-6	1	1	0	100	ug/L	--	--	351	351	0	351	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	Rad	Technetium-99	14133-76-7	1	1	0	100	pCi/L	--	--	13	13	0	13	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Technetium-99 was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-73-61	Rad	Tritium	10028-17-8	3	0	3	0	pCi/L	280	428	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tritium was not processed!
699-77-54	non-Rad	2-Butanone	78-93-3	1	0	1	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable 2-Butanone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Acetone	67-64-1	1	0	1	0	ug/L	3.0	3.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Acetone was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	32	32	0	32	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Carbon tetrachloride	56-23-5	1	0	1	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Carbon tetrachloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Chloroform	67-66-3	1	1	0	100	ug/L	--	--	0.82	0.82	0	0.82	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chloroform was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	26	26	0	26	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Ethylbenzene	100-41-4	1	0	1	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Ethylbenzene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Fluoride	16984-48-8	2	2	0	100	ug/L	--	--	182	318	0.38	318	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Hexavalent Chromiur	18540-29-9	1	1	0	100	ug/L	--	--	24	24	0	24	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Iron	7439-89-6	1	0	1	0	ug/L	19	19	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Manganese	7439-96-5	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Methylene chloride	75-09-2	1	0	1	0	ug/L	1.6	1.6	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Methylene chloride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Nickel	7440-02-0	1	0	1	0	ug/L	4.0	4.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Nitrate	14797-55-8	2	2	0	100	ug/L	--	--	9,300	9,830	0.039	9,830	Maximum Detect	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-77-54	non-Rad	Nitrite	14797-65-0	2	0	2	0	ug/L	125	125	--	--	--	--	--	Warning: This data set only has 2 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	267	267	0	267	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Tetrachloroethene	127-18-4	1	0	1	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Tetrachloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Toluene	108-88-3	1	0	1	0	ug/L	0.30	0.30	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Toluene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Trichloroethene	79-01-6	1	1	0	100	ug/L	--	--	12	12	0	12	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Trichloroethene was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Vanadium	7440-62-2	1	1	0	100	ug/L	--	--	21	21	0	21	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-77-54	non-Rad	Zinc	7440-66-6	1	0	1	0	ug/L	5.0	5.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-78-62	non-Rad	Barium	7440-39-3	4	4	0	100	ug/L	--	--	28	35	0.11	35	95% Student's-t UCL	--
699-78-62	non-Rad	Chromium	7440-47-3	4	1	3	25	ug/L	1.0	5.0	1.3	1.3	0	1.3	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chromium was not processed!
699-78-62	non-Rad	Fluoride	16984-48-8	4	4	0	100	ug/L	--	--	212	300	0.16	296	95% Student's-t UCL	--
699-78-62	non-Rad	Hexavalent Chromiur	18540-29-9	16	4	12	25	ug/L	1.5	8.0	1.6	2.3	0.15	1.8	95% KM (t) UCL	--
699-78-62	non-Rad	Iron	7439-89-6	4	2	2	50	ug/L	19	30	93	205	0.53	205	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-78-62	non-Rad	Manganese	7439-96-5	4	3	1	75	ug/L	4.0	4.0	3.9	24	0.74	23	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates. Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
699-78-62	non-Rad	Nickel	7440-02-0	4	0	4	0	ug/L	1.5	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nickel was not processed!
699-78-62	non-Rad	Nitrate	14797-55-8	3	3	0	100	ug/L	--	--	12,000	14,200	0.084	14,200	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-78-62	non-Rad	Nitrite	14797-65-0	3	0	3	0	ug/L	125	131	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
699-78-62	non-Rad	Strontium	7440-24-6	4	4	0	100	ug/L	--	--	218	267	0.088	267	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-78-62	non-Rad	Vanadium	7440-62-2	4	2	2	50	ug/L	5.0	10	1.0	1.1	0.014	1.1	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-78-62	non-Rad	Zinc	7440-66-6	4	2	2	50	ug/L	3.3	5.0	4.3	5.8	0.21	5.8	Maximum Detect	Highest Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since there are fewer than 5 samples and 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-78-62	Rad	Cesium-137	10045-97-3	4	0	4	0	pCi/L	6.0	16	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
699-78-62	Rad	Tritium	10028-17-8	4	4	0	100	pCi/L	--	--	1,500	2,410	0.24	2,311	95% Modified-t UCL	--

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-84-59	non-Rad	Barium	7440-39-3	1	1	0	100	ug/L	--	--	120	120	0	120	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Barium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Chromium	7440-47-3	1	1	0	100	ug/L	--	--	16	16	0	16	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Fluoride	16984-48-8	1	1	0	100	ug/L	--	--	108	108	0	108	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Fluoride was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Hexavalent Chromiur	18540-29-9	1	0	1	0	ug/L	2.0	2.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Hexavalent Chromium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Iron	7439-89-6	1	1	0	100	ug/L	--	--	8,870	8,870	0	8,870	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Iron was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Manganese	7439-96-5	1	1	0	100	ug/L	--	--	114	114	0	114	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Manganese was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Nickel	7440-02-0	1	1	0	100	ug/L	--	--	9.8	9.8	0	9.8	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nickel was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Nitrate	14797-55-8	1	0	1	0	ug/L	168	168	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrate was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Nitrite	14797-65-0	1	0	1	0	ug/L	125	125	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Nitrite was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Strontium	7440-24-6	1	1	0	100	ug/L	--	--	1,150	1,150	0	1,150	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Strontium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Vanadium	7440-62-2	1	0	1	0	ug/L	5.0	5.0	--	--	--	--	--	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Vanadium was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-84-59	non-Rad	Zinc	7440-66-6	1	1	0	100	ug/L	--	--	22	22	0	22	Maximum Detect	Warning: This data set only has 1 observations! Data set is too small to compute reliable and meaningful statistics and estimates! The data set for variable Zinc was not processed! It is suggested to collect at least 8 to 10 observations before using these statistical methods!
699-87-55	non-Rad	2-Butanone	78-93-3	5	0	5	0	ug/L	0.52	3.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable 2-Butanone was not processed!
699-87-55	non-Rad	Acetone	67-64-1	5	0	5	0	ug/L	0.34	5.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Acetone was not processed!
699-87-55	non-Rad	Carbon tetrachloride	56-23-5	5	0	5	0	ug/L	0.12	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
699-87-55	non-Rad	Chloroform	67-66-3	5	1	4	20	ug/L	0.30	1.0	0.23	0.23	0	0.23	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Chloroform was not processed!
699-87-55	non-Rad	Ethylbenzene	100-41-4	5	0	5	0	ug/L	0.086	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!

Table A-1. 100-NR-2 Groundwater Operable Unit Well-Specific Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
699-87-55	non-Rad	Fluoride	16984-48-8	5	5	0	100	ug/L	--	--	240	340	0.14	335	95% Student's-t UCL	--
699-87-55	non-Rad	Hexavalent Chromiur	18540-29-9	5	5	0	100	ug/L	--	--	11	17	0.16	16	95% Student's-t UCL	--
699-87-55	non-Rad	Methylene chloride	75-09-2	5	0	5	0	ug/L	0.27	1.6	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Methylene chloride was not processed!
699-87-55	non-Rad	Nitrate	14797-55-8	5	5	0	100	ug/L	--	--	20,000	23,900	0.071	23,900	(Alt) Maximum Detect	Recommended UCL Exceeds Maximum Concentration; EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs also exceed maximum concentration.
699-87-55	non-Rad	Nitrite	14797-65-0	5	1	4	20	ug/L	9.9	131	133	133	0	133	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Nitrite was not processed!
699-87-55	non-Rad	Tetrachloroethene	127-18-4	5	3	2	60	ug/L	1.0	1.0	0.42	0.50	0.087	0.50	Maximum Detect	Recommended UCL Exceeds Maximum Concentration: EPC defaulting to Maximum Concentration since 97.5% and 99% Chebyshev(Mean, Sd) UCLs were not calculated.
699-87-55	non-Rad	Toluene	108-88-3	5	0	5	0	ug/L	0.072	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
699-87-55	non-Rad	Trichloroethene	79-01-6	5	0	5	0	ug/L	0.25	1.0	--	--	--	--	--	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!

Table A-2. 100-NR-2 Groundwater Operable Unit Grouped Well Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
ALL	non-Rad	2-Butanone	78-93-3	153	2	151	1.3	ug/L	0.47	3.0	0.84	1.2	0.25	0.51	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	non-Rad	2-Propanol	67-63-0	10	7	3	70	ug/L	1.0	250	7.8	22	0.40	16	95% KM (t) UCL	
ALL	non-Rad	Acenaphthene	83-32-9	137	10	127	7.3	ug/L	0.026	1.0	0.14	2.3	1.3	0.12	95% KM Approximate Gamma UCL	
ALL	non-Rad	Acetone	67-64-1	153	23	130	15	ug/L	0.34	5.0	0.41	4.3	0.62	0.91	95% KM (t) UCL	
ALL	non-Rad	Acetophenone	98-86-2	48	2	46	4.2	ug/L	0.90	2.9	0.94	0.99	0.037	0.92	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	non-Rad	Aldrin	309-00-2	45	1	44	2.2	ug/L	0.0063	0.020	0.025	0.025	0	0.025	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Aldrin was not processed!
ALL	non-Rad	Aluminum	7429-90-5	318	198	120	62	ug/L	5.0	20	6.6	942	1.5	86	95% KM (Chebyshev) UCL	
ALL	non-Rad	Anthracene	120-12-7	137	13	124	9.5	ug/L	0.019	0.97	0.022	0.19	0.70	0.029	95% KM (t) UCL	
ALL	non-Rad	Antimony	7440-36-0	261	18	243	6.9	ug/L	0.084	2.0	0.10	2.0	1.2	0.25	95% KM (Chebyshev) UCL	
ALL	non-Rad	Arsenic	7440-38-2	262	202	60	77	ug/L	0.18	8.5	0.27	17	0.76	4.1	95% KM (Chebyshev) UCL	
ALL	non-Rad	Barium	7440-39-3	578	577	1	100	ug/L	0.23	0.23	9.8	267	0.83	65	95% KM (Chebyshev) UCL	
ALL	non-Rad	Benzo(a)anthracene	56-55-3	137	1	136	0.73	ug/L	0.026	0.97	0.085	0.085	0	0.085	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)anthracene was not processed!
ALL	non-Rad	Benzo(a)pyrene	50-32-8	137	1	136	0.73	ug/L	0.026	0.97	0.26	0.26	0	0.26	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Benzo(a)pyrene was not processed!
ALL	non-Rad	Beryllium	7440-41-7	262	3	259	1.1	ug/L	0.080	0.35	0.45	0.59	0.14	0.091	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	45	1	44	2.2	ug/L	0.0063	0.020	0.45	0.45	0	0.45	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC) was not processed!
ALL	non-Rad	Bis(2-ethylhexyl) phthalate	117-81-7	50	3	47	6.0	ug/L	0.90	2.9	2.6	36	1.4	3.1	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	Boron	7440-42-8	235	190	45	81	ug/L	6.4	25	6.9	93	0.51	20	95% KM H-UCL	
ALL	non-Rad	Bromodichloromethane	75-27-4	45	3	42	6.7	ug/L	0.088	1.0	0.12	0.17	0.19	0.10	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	Bromomethane	74-83-9	46	1	45	2.2	ug/L	0.25	1.0	1.7	1.7	0	1.7	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Bromomethane was not processed!
ALL	non-Rad	Butylbenzylphthalate	85-68-7	49	2	47	4.1	ug/L	0.90	2.9	1.6	140	1.4	43	99% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	Cadmium	7440-43-9	262	24	238	9.2	ug/L	0.050	0.30	0.10	27	3.7	0.64	95% KM (Chebyshev) UCL	
ALL	non-Rad	Carbon tetrachloride	56-23-5	153	1	152	0.65	ug/L	0.12	1.0	0.53	0.53	0	0.53	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Carbon tetrachloride was not processed!
ALL	non-Rad	Chloroform	67-66-3	153	105	48	69	ug/L	0.10	1.0	0.23	8.3	0.65	2.2	95% KM (Chebyshev) UCL	
ALL	non-Rad	Chloromethane	74-87-3	49	2	47	4.1	ug/L	0.077	2.0	0.082	0.16	0.46	0.087	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	non-Rad	Chromium	7440-47-3	578	424	154	73	ug/L	0.20	17	0.83	204	1.9	12	95% KM (Chebyshev) UCL	
ALL	non-Rad	Chrysene	218-01-9	137	2	135	1.5	ug/L	0.026	0.97	0.055	0.066	0.13	0.028	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	non-Rad	Cobalt	7440-48-4	262	124	138	47	ug/L	0.050	0.90	0.055	3.2	1.2	0.41	95% KM (Chebyshev) UCL	
ALL	non-Rad	Copper	7440-50-8	262	202	60	77	ug/L	0.20	2.0	0.19	27	1.6	2.2	95% KM (Chebyshev) UCL	
ALL	non-Rad	Cyanide	57-12-5	46	1	45	2.2	ug/L	1.5	4.0	5.2	5.2	0	5.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cyanide was not processed!
ALL	non-Rad	Dibenz[a,h]anthracene	53-70-3	137	3	134	2.2	ug/L	0.027	0.97	0.044	0.053	0.089	0.029	95% KM (t) UCL	Warning: Data set has only 3 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	Diethylphthalate	84-66-2	48	1	47	2.1	ug/L	0.90	2.9	1.1	1.1	0	1.1	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Diethylphthalate was not processed!
ALL	non-Rad	Ethylbenzene	100-41-4	153	1	152	0.65	ug/L	0.086	1.0	0.37	0.37	0	0.37	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylbenzene was not processed!
ALL	non-Rad	Ethylene glycol	107-21-1	12	1	11	8.3	ug/L	2,100	3,000	6,060	6,060	0	6,060	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Ethylene glycol was not processed!
ALL	non-Rad	Fluoranthene	206-44-0	137	10	127	7.3	ug/L	0.026	0.97	0.036	0.59	1.4	0.059	95% KM (Chebyshev) UCL	
ALL	non-Rad	Fluorene	86-73-7	137	19	118	14	ug/L	0.026	0.97	0.046	3.4	1.2	0.20	95% KM Approximate Gamma UCL	
ALL	non-Rad	Fluoride	16984-48-8	557	436	121	78	ug/L	33	120	28	1,200	0.84	190	95% KM (Chebyshev) UCL	
ALL	non-Rad	Hexavalent Chromium	18540-29-9	222	137	85	62	ug/L	1.5	8.0	1.5	182	2.1	16	95% KM (Chebyshev) UCL	
ALL	non-Rad	Indeno(1,2,3-cd)pyrene	193-39-5	137	1	136	0.73	ug/L	0.026	0.97	0.042	0.042	0	0.042	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Indeno(1,2,3-cd)pyrene was not processed!
ALL	non-Rad	Iron	7439-89-6	533	350	183	66	ug/L	13	64	14	8,870	2.7	330	95% KM (Chebyshev) UCL	
ALL	non-Rad	Lithium	7439-93-2	9	7	2	78	ug/L	2.0	2.0	5.2	9.8	0.23	8.3	95% KM (t) UCL	
ALL	non-Rad	Manganese	7439-96-5	552	340	212	62	ug/L	0.20	5.0	0.20	5,090	2.7	372	95% KM (Chebyshev) UCL	
ALL	non-Rad	Mercury	7439-97-6	48	1	47	2.1	ug/L	0.050	0.20	0.073	0.073	0	0.073	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Mercury was not processed!
ALL	non-Rad	Methanol	67-56-1	46	2	44	4.3	ug/L	100	2,000	686	120,000	1.4	38,994	99% KM (Chebyshev) UCL	Warning: Data set has only 2 Detected Values. This is not enough to compute meaningful or reliable statistics and estimates.
ALL	non-Rad	Methylene chloride	75-09-2	153	16	137	10	ug/L	0.27	1.6	0.34	3.7	0.54	0.54	95% KM (t) UCL	
ALL	non-Rad	Molybdenum	7439-98-7	392	255	137	65	ug/L	0.41	4.0	0.31	20	0.92	3.0	95% KM (Chebyshev) UCL	
ALL	non-Rad	Naphthalene	91-20-3	139	8	131	5.8	ug/L	0.027	1.0	0.030	4.1	1.9	0.044	95% KM H-UCL	
ALL	non-Rad	Nickel	7440-02-0	552	244	308	44	ug/L	0.20	67	0.22	394	3.8	10	95% KM (Chebyshev) UCL	
ALL	non-Rad	Nitrate	14797-55-8	556	547	9	98	ug/L	18	1,460	178	434,000	0.89	49,860	95% KM (Chebyshev) UCL	
ALL	non-Rad	Nitrite	14797-65-0	556	77	479	14	ug/L	9.9	312	14	1,320	0.89	79	95% KM (Chebyshev) UCL	
ALL	non-Rad	Pyrene	129-00-0	137	11	126	8.0	ug/L	0.026	0.97	0.040	0.96	1.4	0.040	95% KM H-UCL	
ALL	non-Rad	Selenium	7782-49-2	262	83	179	32	ug/L	0.66	7.5	0.71	6.4	0.48	1.4	95% KM Approximate Gamma UCL	
ALL	non-Rad	Silver	7440-22-4	262	14	248	5.3	ug/L	0.033	0.90	0.037	1.2	1.1	0.067	95% KM Approximate Gamma UCL	
ALL	non-Rad	Strontium	7440-24-6	521	520	1	100	ug/L	0.31	0.31	55	1,150	0.62	360	95% KM (Chebyshev) UCL	
ALL	non-Rad	Tetrachloroethene	127-18-4	153	13	140	8.5	ug/L	0.18	1.0	0.18	0.50	0.24	0.21	95% KM (t) UCL	
ALL	non-Rad	Thallium	7440-28-0	262	18	244	6.9	ug/L	0.014	0.90	0.020	0.94	0.71	0.067	95% KM (t) UCL	
ALL	non-Rad	Tin	7440-31-5	263	44	219	17	ug/L	0.050	5.0	0.10	7.5	1.2	0.59	95% KM (Chebyshev) UCL	
ALL	non-Rad	Toluene	108-88-3	153	1	152	0.65	ug/L	0.070	1.0	0.21	0.21	0	0.21	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toluene was not processed!
ALL	non-Rad	Toxaphene	8001-35-2	45	1	44	2.2	ug/L	0.14	0.66	0.27	0.27	0	0.27	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Toxaphene was not processed!
ALL	non-Rad	Tributyl phosphate	126-73-8	47	1	46	2.1	ug/L	0.90	2.9	2.9	2.9	0	2.9	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Tributyl phosphate was not processed!
ALL	non-Rad	Trichloroethene	79-01-6	153	1	152	0.65	ug/L	0.25	1.0	12	12	0	12	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Trichloroethene was not processed!
ALL	non-Rad	Uranium	7440-61-1	208	204	4	98	ug/L	0.027	0.23	0.040	9.5	0.63	3.1	95% KM (Chebyshev) UCL	
ALL	non-Rad	Vanadium	7440-62-2	538	343	195	64	ug/L	0.93	25	0.63	43	0.88	8.5	95% KM (Chebyshev) UCL	
ALL	non-Rad	Zinc	7440-66-6	552	196	356	36	ug/L	2.0	42	2.0	351	1.8	12	95% KM (Chebyshev) UCL	
ALL	Rad	Carbon-14	14762-75-5	45	33	12	73	pCi/L	4.5	55	4.5	806	2.2	139	95% KM (Chebyshev) UCL	
ALL	Rad	Cesium-137	10045-97-3	155	1	154	0.65	pCi/L	1.5	33	1.2	1.2	0	1.2	Maximum Detect	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). The data set for variable Cesium-137 was not processed!
ALL	Rad	Plutonium-238	13981-16-3	50	2	48	4.0	pCi/L	0.055	1.2	0.17	0.22	0.18	0.079	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	Rad	Plutonium-239/240	PU-239/240	50	2	48	4.0	pCi/L	0.022	0.95	0.033	0.038	0.100	0.031	95% KM (t) UCL	Warning: One or more Recommended UCL(s) not available! Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
ALL	Rad	Strontium-90	10098-97-2	415	322	93	78	pCi/L	0.41	2.0	0.63	15,500	2.0	1,661	95% KM (Chebyshev) UCL	
ALL	Rad	Technetium-99	14133-76-7	95	36	59	38	pCi/L	2.8	45	7.4	41	0.44	13	95% KM (t) UCL	
ALL	Rad	Tritium	10028-17-8	325	310	15	95	pCi/L	97	428	115	115,000	1.2	9,472	95% KM (Chebyshev) UCL	
ALL	Rad	Uranium-233/234	U-233/234	49	47	2	96	pCi/L	0.16	0.72	0.21	4.4	0.56	1.4	95% KM Adjusted Gamma UCL	

Table A-2. 100-NR-2 Groundwater Operable Unit Grouped Well Exposure Point Concentration Summary

Well Name	Analyte Group	Analyte	CAS No.	Total Samples	Total Detects	Total Non-Detects	Frequency of Detection (%)	Units	Minimum Detection Limit	Maximum Detection Limit	Minimum Detected Result	Maximum Detected Result	Coefficient of Variation	Exposure Point Concentration	Exposure Point Concentration Basis	Comment
ALL	Rad	Uranium-235	15117-96-1	54	16	38	30	pCi/L	0.020	0.94	0.029	0.24	0.50	0.095	95% KM (t) UCL	
ALL	Rad	Uranium-238	U-238	54	51	3	94	pCi/L	0.47	1.4	0.17	4.1	0.63	1.1	95% KM Approximate Gamma UCL	

Appendix B

Toxicity Values

Table B-1. Toxicity Criteria for 100-NR-2 Groundwater Analytes

Analyte name[a]	CAS Num	Oral Reference Dose (RfD_o)[b] (mg/kg-day)	RfD_o Key	Oral Cancer Slope Factor (CSF_o)[b](mg/kg-day)$^{-1}$or Oral Slope Factor (SF_o)[c] (Risk/pCi)	CSF_o Key	Inhalation Reference Concentration (RfC)[b] (mg/m^3)	RfC_bKey	Inhalation Unit Risk (IUR)[b] ($\mu g/m^3$)$^{-1}$	IUR_b Key	Immersion Slope Factor (SF_{imm})[c] (risk/yr per pCi/L)	Inhalation Cancer Slope Factor (SF_i)[c] (Risk/pCi)	SF_i Key	Volatile Nonradionuclides[b] Radionuclides[c]	GIABS Nonradionuclides[b] (unitless)	K_p[d] (cm/hr)	B[d] (unitless)	τ[d] (hours/event)	t^*[d] (hours)	FA[de] (unitless)
2-Butanone	78-93-3	0.6	I	--	--	5	I	--	--	--	--	--	V	1	0.00096	0.0031	0.27	0.64	1
2-Propanol	67-63-0	2	P	--	--	0.2	P	--	--	--	--	--	V	1	0.00078	0.0023	0.23	0.55	1
Acenaphthene	83-32-9	0.06	I	--	--	--	--	--	--	--	--	--	V	1	0.086	0.41	0.77	1.8	1
Acetone	67-64-1	0.9	I	--	--	31	A	--	--	--	--	--	V	1	0.00051	0.0015	0.22	0.53	1
Acetophenone	98-86-2	0.1	I	--	--	--	--	--	--	--	--	--	V	1	0.0037	0.016	0.5	1.2	1
Aldrin	309-00-2	3.00E-05	I	17	I	--	--	0.0049	I	--	--	--	V	1	0.29	2.2	12	48	1
Aluminum	7429-90-5	1	P	--	--	0.005	P	--	--	--	--	--	--	1	0.001	0.002	0.15	0.36	1
Anthracene	120-12-7	0.3	I	--	--	--	--	--	--	--	--	--	V	1	0.14	0.73	1	4.1	1
Antimony	7440-36-0	0.0004	I	--	--	--	--	--	--	--	--	--	--	0.15	0.001	0.0042	0.51	1.2	1
Arsenic	7440-38-2	0.0003	I	1.5	I	1.50E-05	C	0.0043	I	--	--	--	--	1	0.001	0.0033	0.28	0.66	1
Barium	7440-39-3	0.2	I	--	--	0.0005	H	--	--	--	--	--	--	0.07	0.001	0.0045	0.62	1.5	1
Benzo(a)anthracene	56-55-3	--	--	0.1	E	--	--	6.00E-05	E	--	--	--	V	1	0.55	3.2	2	8.5	1
Benzo(a)pyrene	50-32-8	0.0003	I	1	I	2.00E-06	I	0.0006	I	--	--	--	--	1	0.71	4.4	2.7	12	1
Beryllium	7440-41-7	0.002	I	--	--	2.00E-05	I	0.0024	I	--	--	--	--	0.007	0.001	0.0012	0.12	0.28	1
beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC)	319-85-7	--	--	1.8	I	--	--	0.00053	I	--	--	--	--	1	0.021	0.14	4.5	11	0.9
Bis(2-ethylhexyl) phthalate	117-81-7	0.02	I	0.014	I	--	--	2.40E-06	C	--	--	--	--	1	1.1	8.6	16	73	0.8
Boron	7440-42-8	0.2	I	--	--	0.02	H	--	--	--	--	--	--	1	0.001	0.0014	0.13	0.3	1
Bromodichloromethane	75-27-4	0.02	I	0.062	I	--	--	3.70E-05	C	--	--	--	V	1	0.004	0.02	0.87	2.1	1
Bromomethane	74-83-9	0.0014	I	--	--	0.005	I	--	--	--	--	--	V	1	0.0028	0.011	0.36	0.86	1
Butylbenzyl phthalate	85-68-7	0.2	I	0.0019	P	--	--	--	--	--	--	--	--	1	0.039	0.26	5.9	14	0.9
Cadmium	7440-43-9	0.0005	I	--	--	1.00E-05	A	0.0018	I	--	--	--	--	0.05	0.001	0.0041	0.45	1.1	1
Carbon tetrachloride	56-23-5	0.004	I	0.07	I	0.1	I	6.00E-06	I	--	--	--	V	1	0.016	0.078	0.76	1.8	1
Carbon-14	14762-75-5	--	--	1.55E-12	--	--	--	--	--	5.80E-17	1.70E-11	--	V	--	--	--	--	--	--
Cesium-137	10045-97-3	--	--	3.05E-11	--	--	--	--	--	5.16E-12	1.10E-10	--	--	--	--	--	--	--	--
Chloroform	67-66-3	0.01	I	0.031	C	0.098	A	2.30E-05	I	--	--	--	V	1	0.0068	0.029	0.49	1.2	1
Chloromethane	74-87-3	--	--	--	--	0.09	I	--	--	--	--	--	V	1	0.0033	0.009	0.2	0.48	1
Chromium	7440-47-3	1.5	I	--	--	--	--	--	--	--	--	--	--	0.013	0.001	0.0028	0.21	0.49	1
Chrysene	218-01-9	--	--	0.001	E	--	--	6.00E-07	E	--	--	--	--	1	0.6	3.5	2	8.5	1
Cobalt	7440-48-4	0.0003	P	--	--	6.00E-06	P	0.009	P	--	--	--	--	1	0.0004	0.0012	0.22	0.54	1

Copper	7440-50-8	0.04	H	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0031	0.24	0.57	1
Cyanide	57-12-5	0.0006	I	--	--	0.0008	S	--	--	--	--	--	V	1	0.001	0.002	0.15	0.35	1
Dibenz[a,h] anthracene	53-70-3	--	--	1	E	--	--	0.0006	E	--	--	--	--	1	0.95	6.1	3.8	17	0.6
Diethylphthalate	84-66-2	0.8	I	--	--	--	--	--	--	--	--	--	--	1	0.0036	0.021	1.8	4.4	1
Ethylbenzene	100-41-4	0.1	I	0.011	C	1	I	2.50E-06	C	--	--	--	V	1	0.049	0.2	0.41	0.99	1
Ethylene glycol	107-21-1	2	I	--	--	0.4	C	--	--	--	--	--	--	1	8.80E-05	0.00027	0.23	0.56	1
Fluoranthene	206-44-0	0.04	I	--	--	--	--	--	--	--	--	--	--	1	0.31	1.7	1.4	5.7	1
Fluorene	86-73-7	0.04	I	--	--	--	--	--	--	--	--	--	V	1	0.11	0.55	0.9	2.2	1
Fluoride	16984-48-8	0.06	I	--	--	0.013	C	--	--	--	--	--	--	1	0.001	0.0024	0.17	0.41	1
Hexavalent Chromium	18540-29-9	0.003	I	--	--	0.0001	I	0.084	S	--	--	--	--	0.025	0.002	0.0055	0.21	0.49	1
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	0.1	E	--	--	6.00E-05	E	--	--	--	--	1	1.2	7.9	3.7	17	0.6
Iron	7439-89-6	0.7	P	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0029	0.22	0.52	1
Lithium	7439-93-2	0.002	P	--	--	--	--	--	--	--	--	--	--	1	0.001	0.001	0.12	0.28	1
Manganese	7439-96-5	0.024	S	--	--	5.00E-05	I	--	--	--	--	--	--	0.04	0.001	0.0029	0.21	0.51	1
Mercury	7439-97-6	0.0003	I	--	--	0.0003	S	--	--	--	--	--	--	0.07	0.001	0.0063	3.5	8.4	1
Methanol	67-56-1	2	I	--	--	20	I	--	--	--	--	--	V	1	0.00032	0.00069	0.16	0.38	1
Methylene chloride	75-09-2	0.006	I	0.002	I	0.6	I	1.00E-08	I	--	--	--	V	1	0.0035	0.013	0.31	0.75	1
Molybdenum	7439-98-7	0.005	I	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0038	0.36	0.87	1
Naphthalene	91-20-3	0.02	I	--	--	0.003	I	3.40E-05	C	--	--	--	V	1	0.047	0.2	0.55	1.3	1
Nickel	7440-02-0	0.02	I	--	--	9.00E-05	A	0.00026	C	--	--	--	--	0.04	0.0002	0.00059	0.22	0.54	1
Nitrate	14797-55-8	7.1	I	--	--	--	--	--	--	--	--	--	--	1	0.001	0.003	0.23	0.56	1
Nitrite	14797-65-0	0.3	I	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0026	0.19	0.46	1
Plutonium-238	13981-16-3	--	--	1.31E-10	--	--	--	--	--	5.95E-16	5.20E-08	--	--	--	--	--	--	--	--
Plutonium-239/240	PU-239/240	--	--	1.35E-10	--	--	--	--	--	7.25E-16	5.60E-08	--	--	--	--	--	--	--	--
Pyrene	129-00-0	0.03	I	--	--	--	--	--	--	--	--	--	V	1	0.2	1.1	1.4	5.5	1
Selenium	7782-49-2	0.005	I	--	--	0.02	C	--	--	--	--	--	--	1	0.001	0.0034	0.29	0.7	1
Silver	7440-22-4	0.005	I	--	--	--	--	--	--	--	--	--	--	0.04	0.0006	0.0024	0.42	1	1
Strontium	7440-24-6	0.6	I	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0036	0.33	0.78	1
Strontium-90	10098-97-2	--	--	7.40E-11	--	--	--	--	--	3.97E-14	4.30E-10	--	--	--	--	--	--	--	--
Technetium-99	14133-76-7	--	--	2.75E-12	--	--	--	--	--	5.62E-16	3.80E-11	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	0.006	I	0.0021	I	0.04	I	2.60E-07	I	--	--	--	V	1	0.033	0.17	0.89	2.1	1
Thallium	7440-28-0	1.00E-05	X	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0055	1.5	3.5	1
Tin	7440-31-5	0.6	H	--	--	--	--	--	--	--	--	--	--	1	0.001	0.0042	0.49	1.2	1
Toluene	108-88-3	0.08	I	--	--	5	I	--	--	--	--	--	V	1	0.031	0.11	0.35	0.83	1
Toxaphene	8001-35-2	--	--	1.1	I	--	--	0.00032	I	--	--	--	--	1	0.052	0.42	34	82	0.8
Tributyl phosphate	126-73-8	0.01	P	0.009	P	--	--	--	--	--	--	--	--	1	0.023	0.14	3.3	7.8	0.9
Trichloroethene	79-01-6	0.0005	I	0.046	I	0.002	I	4.10E-06	I	--	--	--	V	1	0.012	0.051	0.57	1.4	1
Tritium	10028-17-8	--	--	5.07E-14	--	--	--	--	--	0	8.50E-13	--	V	--	--	--	--	--	--
Uranium	7440-61-1	0.003	I	--	--	4.00E-05	A	--	--	--	--	--	--	1	0.001	0.0059	2.3	5.4	1
Uranium-233/234	U-233/234	--	--	7.07E-11	--	--	--	--	--	1.17E-15	2.80E-08	--	--	--	--	--	--	--	--

Uranium-234	13966-29-5	--	--	7.07E-11	--	--	--	--	--	1.17E-15	2.80E-08	--	--	--	--	--	--	--	--
Uranium-235	15117-96-1	--	--	7.18E-11	--	--	--	--	--	1.48E-12	2.50E-08	--	--	--	--	--	--	--	--
Uranium-238	U-238	--	--	8.70E-11	--	--	--	--	--	2.69E-13	2.40E-08	--	--	--	--	--	--	--	--
Vanadium	7440-62-2	0.005	S	--	--	0.0001	A	--	--	--	--	--	--	0.026	0.001	0.0027	0.2	0.49	1
Zinc	7440-66-6	0.3	I	--	--	--	--	--	--	--	--	--	--	1	0.0006	0.0019	0.24	0.59	1

Notes:

[a] Source = ECF 100NR2-17-0006. *Calculation of Exposure Point Concentrations for the 100-NR-2 Groundwater Operable Unit.*

b Source = EPA, 2017b, "Summary Table", dated June, 2017, available online at "Regional Screening Levels for Chemical Contaminants at Superfund Sites.", http://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-june-2017.

c Source = EPA, 2017a, "Resident Tapwater Table", dated November, 2014, available online at "Preliminary Remediation Goals for Radionuclides (PRG)", http://epa-prgs.ornl.gov/radionuclides.

d Source = EPA, 2017b, "Parameters Table", dated June, 2017, available online at "Regional Screening Levels for Chemical Contaminants at Superfund Sites.", http://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-june-2017.

-- = indicates toxicity value not available for this contaminant and exposure route.

+D = Indicates radionuclide whose slope factors include contributions from ingrowth of short-lived radioactive decay products.

A = ATSDR

B = partitioning constant.

C = Cal EPA

E = see user guide Section 2.3.5

FA = fraction absorbed.

GIABS = gastrointestinal absorption factor.

H = HEAST

I = IRIS

K^p = dermal permeability constant.

P = PPRTV

S = See user guide section

X = APPENDIX PPRTV SCREEN

t* = time to reach steady-state conditions.

τ = lag time

V = volatile

Appendix C

Software Installation and Checkout Form for POSTAL

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CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM

Software Owner Instructions:

Complete Fields 1-13, then run test cases in Field 14. Compare test case results listed in Field 15 to corresponding Test Report outputs. If results are the same, sign and date Field 19. If not, resolve differences and repeat above steps.

Software Subject Matter Expert Instructions:

Assign test personnel. Approve the installation of the code by signing and dating Field 21, then maintain form as part of the software support documentation.

GENERAL INFORMATION:

1. Software Name: POSTAL Software Version No.: 3.0

EXECUTABLE INFORMATION:

2. Executable Name (include path):

   C:\Users\npowers\Desktop\POSTAL3.0\POSTAL.exe

3. Executable Size (bytes): 632,832

COMPILATION INFORMATION:

4. Hardware System (i.e., property number or ID):

   Lenovo ThinkPad (property tag INTERA-00707)

5. Operating System (include version number):

   Windows 10 Pro 64-bit

INSTALLATION AND CHECKOUT INFORMATION:

6. Hardware System (i.e., property number or ID):

   Lenovo ThinkPad (property tag INTERA-00707)

7. Operating System (include version number):

   Windows 10 Pro 64-bit

8. Open Problem Report? (●) No ( ) Yes PR/CR No.

TEST CASE INFORMATION:

9. Directory/Path:

   C:\Users\npowers\Desktop\POSTAL3.0\

10. Procedure(s):

    CHPRC-03486 Rev. 0, POSTAL Software Management Plan (Sections 16 and 13.3.3.9)

11. Libraries:

    N/A

12. Input Files:

    N/A

13. Output Files:

    N/A (to screen)

14. Test Cases:

    POSTAL-ITC-1

15. Test Case Results:

    Passed. Match expected results as presented in CHPRC-03486, POSTAL Software Management Plan Section 13.3.3.9 and Attachment 5: Test Log for POSTAL-ITC-1 template.

16. Test Performed By: Nell Powers

17. Test Results: (●) Satisfactory, Accepted for Use ( ) Unsatisfactory

Page 1 of 2 A-6005-149 (REV 0)

CHPRC SOFTWARE INSTALLATION AND CHECKOUT FORM (continued)

1. Software Name: POSTAL Software Version No.: 3.0

18. Disposition (include HISI update):

Installation added to HISI registry. -WE Nichols

Prepared By:

19.	William E Nichols	7 MAR 2018
Software Owner (Signature)	Print	Date

20. Test Personnel:

	N. Powers	7 Mar 2018
Sign	Print	Date
Sign	Print	Date
Sign	Print	Date

Approved By:

21.	N/A (CHRPC-3486)	
Software SME (Signature)	Print	Date

Page 2 of 2

A-6005-149 (REV 0)