

TABLE F-1. Summary of Health Risk-Based Screening Results for the Preliminary Soil Gas COPCs for the OU-3 BHRA (5 ft bgs)
Nevada Environmental Response Trust Site
Henderson, Nevada

Analyte	Screening Levels ^[1]	Screening Level Scenario	Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
							Minimum	Maximum	Mean	Location of Maximum	
Benzene	9.97E+17	Residential indoor air	µg/m ³	13	9	69	0.090	0.64	0.27	RISG-51	6.4E-19
Bromodichloromethane	209	Residential indoor air	µg/m ³	13	7	54	0.057	5.5	1.7	RISG-39	0.026
Carbon tetrachloride	1,280	Residential indoor air	µg/m ³	13	13	100	0.40	110	12	RISG-37	0.086
Chlorobenzene	116,000	Residential indoor air	µg/m ³	13	5	38	0.26	1.1	0.50	RISG-38	0.0000095
Chloroform	257	Residential indoor air	µg/m ³	13	13	100	1.4	4,900	493	RISG-37	19
1,1-Dichloroethane	3,450	Residential indoor air	µg/m ³	13	8	62	0.031	31	4.7	RISG-35	0.0090
1,4-Dioxane	724	Residential indoor air	µg/m ³	13	5	38	0.14	0.94	0.47	RISG-38	0.0013
Tetrachloroethene	32,800	Residential indoor air	µg/m ³	13	13	100	0.48	140	20	RISG-37	0.0043

Notes:

µg/m³ = microgram per cubic meter

bgs = below ground surface

BHRA = Baseline health risk assessment

COPC = Chemical of potential concern

ft = feet

OU = Operable unit

RBTC = Risk-based target concentration

[1] Screening levels are the lowest soil gas RBTCs at 5 ft bgs among residents, indoor commercial/industrial workers, outdoor commercial/industrial workers, and construction workers as reported in the OU-2 BHRA (Ramboll 2021).

Indicates one or more samples for this analyte exceeded the screening level.

Reference:

Ramboll. 2021. Baseline Health Risk Assessment for OU-2 Soil Gas and Groundwater, Nevada Environmental Response Trust Site, Henderson, Nevada. July 23.

TABLE F-2. Summary of Health Risk-Based Screening Results for the Preliminary Soil Gas COPCs for the OU-3 BHRA (10-15 ft bgs)

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Screening Levels ^[1]	Screening Level Scenario	Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
							Minimum	Maximum	Mean	Location of Maximum	
Benzene	1.15E+19	Residential indoor air	µg/m ³	10	8	80	0.17	1.1	0.5	RISG-50	9.6E-20
Bromodichloromethane	716	Residential indoor air	µg/m ³	10	5	50	0.045	7.9	3.2	RISG-44	0.011
Carbon tetrachloride	4,360	Residential indoor air	µg/m ³	10	10	100	0.31	200	23	RISG-37	0.046
Chlorobenzene	388,000	Residential indoor air	µg/m ³	10	4	40	0.15	0.38	0.28	RISG-50	0.00000098
Chloroform	855	Residential indoor air	µg/m ³	10	10	100	1.8	8,900	1,100	RISG-37	10
1,1-Dichloroethane	11,400	Residential indoor air	µg/m ³	10	9	90	0.050	7.2	1.3	RISG-37	0.00063
1,4-Dioxane	1,820	Residential indoor air	µg/m ³	10	3	30	0.065	0.62	0.29	RISG-36	0.00034
Tetrachloroethene	114,000	Residential indoor air	µg/m ³	10	10	100	0.48	300	37	RISG-37	0.0026

Notes:

µg/m³ = microgram per cubic meter

bgs = below ground surface

BHRA = Baseline health risk assessment

COPC = Chemical of potential concern

ft = feet

OU = Operable unit

RBTC = Risk-based target concentration

[1] Screening levels are the lowest soil gas RBTCs at 10-15 ft bgs among residents, indoor commercial/industrial workers, outdoor commercial/industrial workers, and construction workers as reported in the OU-2 BHRA (Ramboll 2021).

Indicates one or more samples for this analyte exceeded the screening level.

Reference:

Ramboll. 2021. Baseline Health Risk Assessment for OU-2 Soil Gas and Groundwater, Nevada Environmental Response Trust Site, Henderson, Nevada. July 23.

TABLE F-3. Summary of Health Risk-Based Screening Results for the Preliminary Shallow Groundwater COPCs for the OU-3 BHRA (≤ 10 ft bgs)

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Groundwater RBTC for Vapor Intrusion Pathway ^[1]	Groundwater Screening Level ^[2]	Selected Screening Levels ^[3]		Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
			Value	Source					Minimum	Maximum	Mean	Location of Maximum	
Arsenic	--	10	10	MCL	µg/L	44	44	100	49	150	103	PC-98R	15
Benzene	1.51E+09	5	5	MCL	µg/L	109	0	0	--	--	--	--	--
Boron	--	6,670	6,670	BCL	µg/L	50	50	100	495	2,880	1,400	WMW6.9S	0.43
Bromodichloromethane	13	80	13	Residential indoor air	µg/L	109	0	0	--	--	--	--	--
Carbon tetrachloride	6.1	5	5	MCL	µg/L	109	2	1.8	0.99	2.1	1.5	PC-53	0.42
Chlorate ^[4]	--	1,000	1,000	BCL	µg/L	249	169	68	4.9	270,000	17,200	PC-53	270
Chloroform	8.6	70	8.6	Residential indoor air	µg/L	109	29	27	0.11	960	120	PC-53	110
Chromium (total)	--	100	100	MCL	µg/L	223	88	39	1.4	230	39	PC-53	2.3
Chromium VI	--	0.05	0.05	BCL	µg/L	57	23	40	0.16	1,350	68	PC-53	27,000
1,1-Dichloroethane	75	2.8	2.8	BCL	µg/L	109	23	21	0.18	2.9	1.4	PC-103	1.0
1,4-Dioxane	9,680	0.46	0.46	BCL	µg/L	80	13	16	0.28	1.1	0.54	PC-156B	2.4
Magnesium	--	189,000	189,000	BCL	µg/L	49	49	100	50,200	303,000	119,000	WMW6.9S	1.6
Manganese	--	4,670	4,670	BCL	µg/L	46	38	83	1.0	1,500	567	PC-155A	0.32
Nitrate (as N)	--	10,000	10,000	MCL	µg/L	173	146	84	30	18,000	5,250	PC-53	1.8
Perchlorate ^[4]	--	15	15	PRG	µg/L	360	353	98	2.2	61,000	9,290	PC-191	4,100
Tetrachloroethene	266	5	5	MCL	µg/L	109	8	7.3	0.25	0.72	0.39	PC-77	0.14
1,2,3-Trichloropropane	281	0.00084	0.00084	BCL	µg/L	184	9	4.9	0.0034	0.074	0.018	PC-53	89

Notes:

-- = No value

µg/L = microgram per liter

BCL = Basic comparison level

bgs = below ground surface

BHRA = Baseline health risk assessment

COPC = Chemical of potential concern

ft = feet

MCL = Maximum contaminant level

NDEP = Nevada Division of Environmental Protection

OU = Operable unit

PRG = Preliminary Remediation Goal

RBTC = Risk-based target concentration

RI = Remedial investigation

[1] Groundwater RBTCs are the lowest RBTCs at ≤ 10 ft bgs among residents, indoor commercial/industrial workers, outdoor commercial/industrial workers, and construction workers as reported in the OU-2 BHRA (Ramboll 2021a).

[2] Groundwater screening levels as listed in the RI report for OU-1 and OU-2 (Ramboll 2021b, Appendix G) but with the most recent BCL values released in 2022 (NDEP 2020).

[3] Selected screening levels are the minimum between the groundwater RBTCs (Ramboll 2021a) and the groundwater screening levels (Ramboll 2021b).

[4] Chlorate and perchlorate exceeded the groundwater screening level in both the western portion and eastern portion of OU-3.

Indicates one or more samples for this analyte exceeded the screening level.

References:

NDEP. 2020. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. August.

Ramboll. 2021a. Baseline Health Risk Assessment for OU-2 Soil Gas and Groundwater, Nevada Environmental Response Trust Site, Henderson, Nevada. July 23.

Ramboll. 2021b. Remedial Investigation Report for OU-1 and OU-2, Nevada Environmental Response Trust Site, Henderson, Nevada. July 9.

TABLE F-4. Summary of Health Risk-Based Screening Results for the Preliminary Shallow Groundwater COPCs for the OU-3 BHRA (> 10 ft bgs) ^[1]

Nevada Environmental Response Trust Site

Henderson, Nevada

Analyte	Groundwater RBTC for Vapor Intrusion Pathway ^[2]	Groundwater Screening Level ^[3]	Selected Screening Levels ^[4]		Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
			Value	Source					Minimum	Maximum	Mean	Location of Maximum	
Benzene	1.43E+17	5	5	MCL	µg/L	24	1	4.2	0.15	0.15	0.15	PC-2	0.03
Bromodichloromethane	21	80	21	Residential indoor air	µg/L	24	1	4.2	0.61	0.61	0.61	PC-200	0.03
Carbon tetrachloride	10	5	5	MCL	µg/L	24	9	38	1.3	7.0	2.7	PC-4	1.4
Chloroform	14	70	14	Residential indoor air	µg/L	24	23	96	0.15	260	52	PZ-2S	18
1,1-Dichloroethane	122	2.8	2.8	BCL	µg/L	24	4	17	0.12	0.28	0.18	PC-4	0.10
1,4-Dioxane	18,300	0.46	0.46	BCL	µg/L	13	10	77	0.59	1.5	1.0	PC-4	3.3
Tetrachloroethene	434	5	5	MCL	µg/L	24	9	38	0.59	2.0	1.2	DBMW-19	0.4
1,2,3-Trichloropropane	514	0.00084	0.00084	BCL	µg/L	37	11	30	0.0025	0.085	0.032	PC-4	100

Notes:

-- = No value

µg/L = microgram per liter

BCL = Basic comparison level

bgs = below ground surface

BHRA = Baseline health risk assessment

COPC = Chemical of potential concern

ft = feet

MCL = Maximum contaminant level

NDEP = Nevada Division of Environmental Protection

OU = Operable unit

RBTC = Risk-based target concentration

RI = Remedial investigation

[1] Only VOC data from wells with depth to groundwater deeper than 10 ft bgs and top of the screen < 60 ft bgs located in OU-3 west of Pabco Road were included in this evaluation because vapor intrusion is the only complete pathway for groundwater deeper than 10 ft bgs and NERT is not responsible for VOCs in OU-3 east of Pabco Road.

[2] Groundwater RBTCs are the lowest RBTCs at > 10 ft bgs among residents, indoor commercial/industrial workers, outdoor commercial/industrial workers, and construction workers as reported in the OU-2 BHRA (Ramboll 2021a).

[3] Groundwater screening levels as listed in the RI report for OU-1 and OU-2 (Ramboll 2021b, Appendix G) but with the most recent BCL values released in 2022 (NDEP 2020).

[4] Selected screening levels are the minimum between the groundwater RBTCs (Ramboll 2021a) and the groundwater screening levels (Ramboll 2021b).

Indicates one or more samples for this analyte exceeded the screening level.

References:

NDEP. 2020. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. August.

Ramboll. 2021a. Baseline Health Risk Assessment for OU-2 Soil Gas and Groundwater, Nevada Environmental Response Trust Site, Henderson, Nevada. July 23.

Ramboll. 2021b. Remedial Investigation Report for OU-1 and OU-2, Nevada Environmental Response Trust Site, Henderson, Nevada. July 9.

TABLE F-5. Summary of Health Risk-Based Screening Results for the Preliminary Soil COPCs for the OU-3 BHRA (0 - 10 ft bgs)
Nevada Environmental Response Trust Site
Henderson, Nevada

Analyte	Soil Screening Level ^[1]		Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
	Value	Source					Minimum	Maximum	Mean	Location of Maximum	
Arsenic	7.2	Maximum BRC/TIMET background	mg/kg	10	10	100	6.3	16	9.6	PC-205B	2.2
Boron	15,600	BCL	mg/kg	10	6	60	6.0	20	16	PC-205B	0.0013
Chlorate	2,350	BCL	mg/kg	28	3	11	0.073	2.2	0.9	BERA_SWF-SO002	0.00094
Chromium (total)	100,000	BCL	mg/kg	14	14	100	8.2	17.8	14	PC-205	0.00018
Magnesium	100,000	BCL	mg/kg	10	10	100	6,830	23,200	14,500	PC-205B	0.23
Manganese	9,320	BCL	mg/kg	10	10	100	259	932	430	PC-205A	0.10
Nitrate (as N)	100,000	BCL	mg/kg	10	4	40	3.3	21	14	PC-205	0.00021
Perchlorate	55	BCL	mg/kg	48	32	67	0.024	53	16	SWF-05	0.97

Notes:

-- = No value

µg/L = microgram per liter

BCL = Basic comparison level

bgs = below ground surface

BHRA = Baseline health risk assessment

BRC = Basic Remediation Company

COPC = Chemical of potential concern

NDEP = Nevada Division of Environmental Protection

TIMET = Titanium Metals Corporation

[1] Residential BCLs (NDEP 2020) were used for all analytes except arsenic, for which maximum BRC/TIMET background concentration was used, following the toxicity screening method used in OU-1 Soil BHRA (Ramboll 2022).

Indicates one or more samples for this analyte exceeded the screening level.

References:

NDEP. 2020. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. August.

Ramboll. 2022. Baseline Health Risk Assessment for OU-1 Soils, Revision 2. May 6.

TABLE F-6. Summary of Health Risk-Based Screening Results for the Preliminary Surface Water COPCs for the OU-3 BHRA Nevada Environmental Response Trust Site Henderson, Nevada

Analyte	Surface Water Screening Levels ^[1]		Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
	Value	Source					Minimum	Maximum	Mean	Location of Maximum	
Arsenic	10	MCL	µg/L	11	11	100	3.7	55	10	LVW-04/2016	5.5
Boron	6,670	BCL	µg/L	11	11	100	470	2,200	678	LVW-04/2016	0.33
Chlorate ^[2]	1,000	BCL	µg/L	2373	2363	99.6	20	13,000	352	T4.8A_20180503	13
Chloroform ^[3]	8.6	Groundwater RBTC	µg/L	14	13	93	0.45	2.1	1.2	BERA_A-N	0.24
Chromium (total)	100	MCL	µg/L	34	9	26	0.53	5.2	1.7	BERA_B-S	0.052
Magnesium	189,000	BCL	µg/L	11	11	100	59,000	170,000	74,100	LVW-04/2016	0.90
Manganese	4,670	BCL	µg/L	11	11	100	13	630	75	LVW-04/2016	0.13
Nitrate (as N)	10,000	MCL	µg/L	11	11	100	5020	14,300	12,300	LVW-01/2016	1.4
Perchlorate ^[2]	15	PRG	µg/L	2374	2185	92	0.37	19,000	146	C1-E	1,300

Notes:

-- = No value
µg/L = microgram per liter
BCL = Basic comparison level
bgs = below ground surface
BHRA = Baseline health risk assessment
COPC = Chemical of potential concern

MCL = Maximum contaminant level
NDEP = Nevada Division of Environmental Protection
OU = Operable unit
PRG = Preliminary Remediation Goal
RBTC = Risk-based target concentration
RI = Remedial investigation

[1] Surface water screening levels as listed in the RI report for OU-1 and OU-2 (Ramboll 2021b, Appendix G) but with the most recent BCL values released in 2022 (NDEP 2020).

[2] Chlorate and perchlorate exceeded the surface water screening level in both the western portion and eastern portion of OU-3.

[3] Lowest groundwater RBTC for chloroform as reported in the OU-2 BHRA (Ramboll 2021a) to be conservative.

Indicates one or more samples for this analyte exceeded the screening level.

References:

NDEP. 2020. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. August.

Ramboll. 2021a. Baseline Health Risk Assessment for OU-2 Soil Gas and Groundwater, Nevada Environmental Response Trust Site, Henderson, Nevada. July 23.

Ramboll. 2021b. Remedial Investigation Report for OU-1 and OU-2, Nevada Environmental Response Trust Site, Henderson, Nevada. July 9.

**TABLE F-7. Summary of Health Risk-Based Screening Results for the Preliminary Sediment COPCs for the OU-3 BHRA
Nevada Environmental Response Trust Site
Henderson, Nevada**

Analyte	Soil Screening Level ^[1]		Unit	No. of Samples	No. of Detects	% Detects	Detects				Ratio of Maximum to Screen
	Value	Source					Minimum	Maximum	Mean	Location of Maximum	
Chlorate	2,350	BCL	mg/kg	25	1	4	0.054	0.054	0.054	BERA_B-S	0.000023
Chloroform	0.32	BCL	mg/kg	5	1	20	0.0013	0.0013	0.0013	BERA_A-N	0.0041
Chromium (total)	100,000	BCL	mg/kg	5	5	100	6.0	8.5	7.5	BERA_B-N	0.000085

Notes:

-- = No value
 µg/L = microgram per liter
 BCL = Basic comparison level
 bgs = below ground surface

BHRA = Baseline health risk assessment
 COPC = Chemical of potential concern
 NDEP = Nevada Division of Environmental Protection

[1] Residential BCLs (NDEP 2020) were used for all analytes.

Indicates one or more samples for this analyte exceeded the screening level.

References:

NDEP. 2020. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. August.