

Appendix B: Dosimeter Measurements and Locations



Table B-1. Results of environmental radiation measurements at Auxiliary Reactor Area (ARA) and Critical Infrastructure Test Range Complex (CITRC) (2022).

LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
ARA ^b I&II O-1	62	70
PBF ^c SPERT O-1	70	67

- a. Millirem (mrem) in ambient dose equivalent.
- b. Auxiliary Reactor Area (ARA).
- c. Power Burst Facility Special Power Excursion Reactor Test (PBF SPERT).

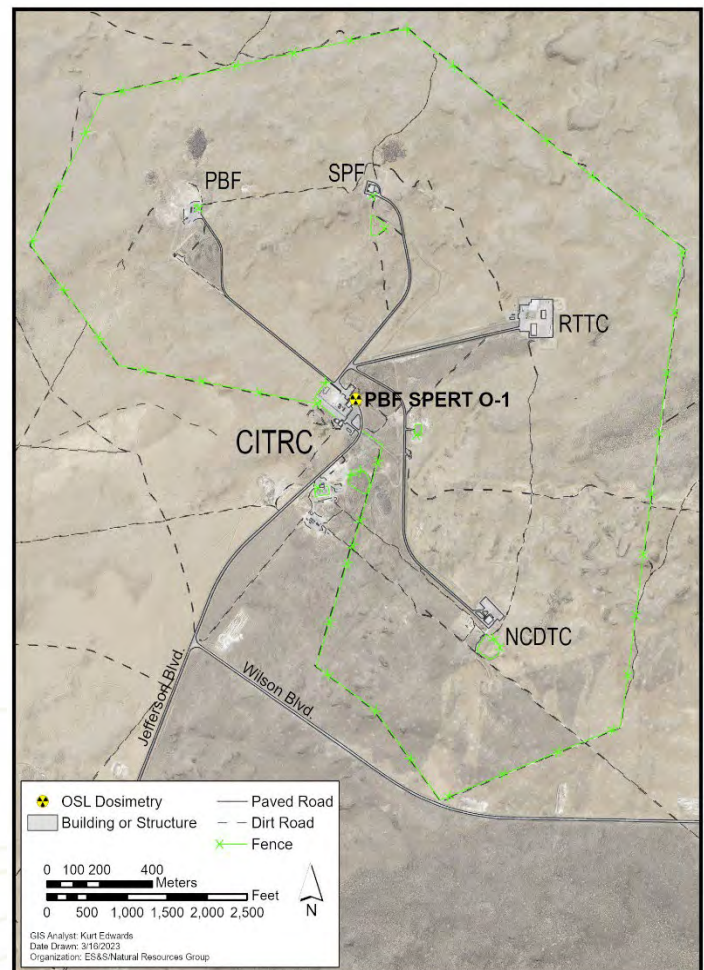


Figure B-1. Environmental radiation measurements at Auxiliary Reactor Area (ARA) and Critical Infrastructure Test Range Complex (CITRC) (2022).



Table B-2. Results of environmental radiation measurements at Advanced Test Reactor (ATR) Complex and Remote-Handled Low-Level Waste Disposal Facility (RHLLW) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022		NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
RHLLW ^b O-1	67	80	TRA O-14	69	69
RHLLW O-2	67	65	TRA O-15	69	66
RHLLW O-3	69	63	TRA O-16	77	69
RHLLW O-4	74	72	TRA O-17	74	66
RHLLW O-5	68	74	TRA O-18	75	74
RHLLW O-6	70	66	TRA O-19	89	82
TRA ^c O-1	72	79	TRA O-20	70	67
TRA O-6	71	66	TRA O-21	75	70
TRA O-7	83	77	TRA O-22	63	71
TRA O-8	78	77	TRA O-23	66	69
TRA O-9	82	81	TRA O-24	70	75
TRA O-10	140	116	TRA O-25	73	78
TRA O-11	138	118	TRA O-26	70	77
TRA O-12	81	82	TRA O-27	71	70
TRA O-13	77	85	TRA O-28	73	66

a. Millirem (mrem) in ambient dose equivalent.

b. Remote-Handled Low-Level Waste (RHLLW).

c. Test Reactor Area (TRA).

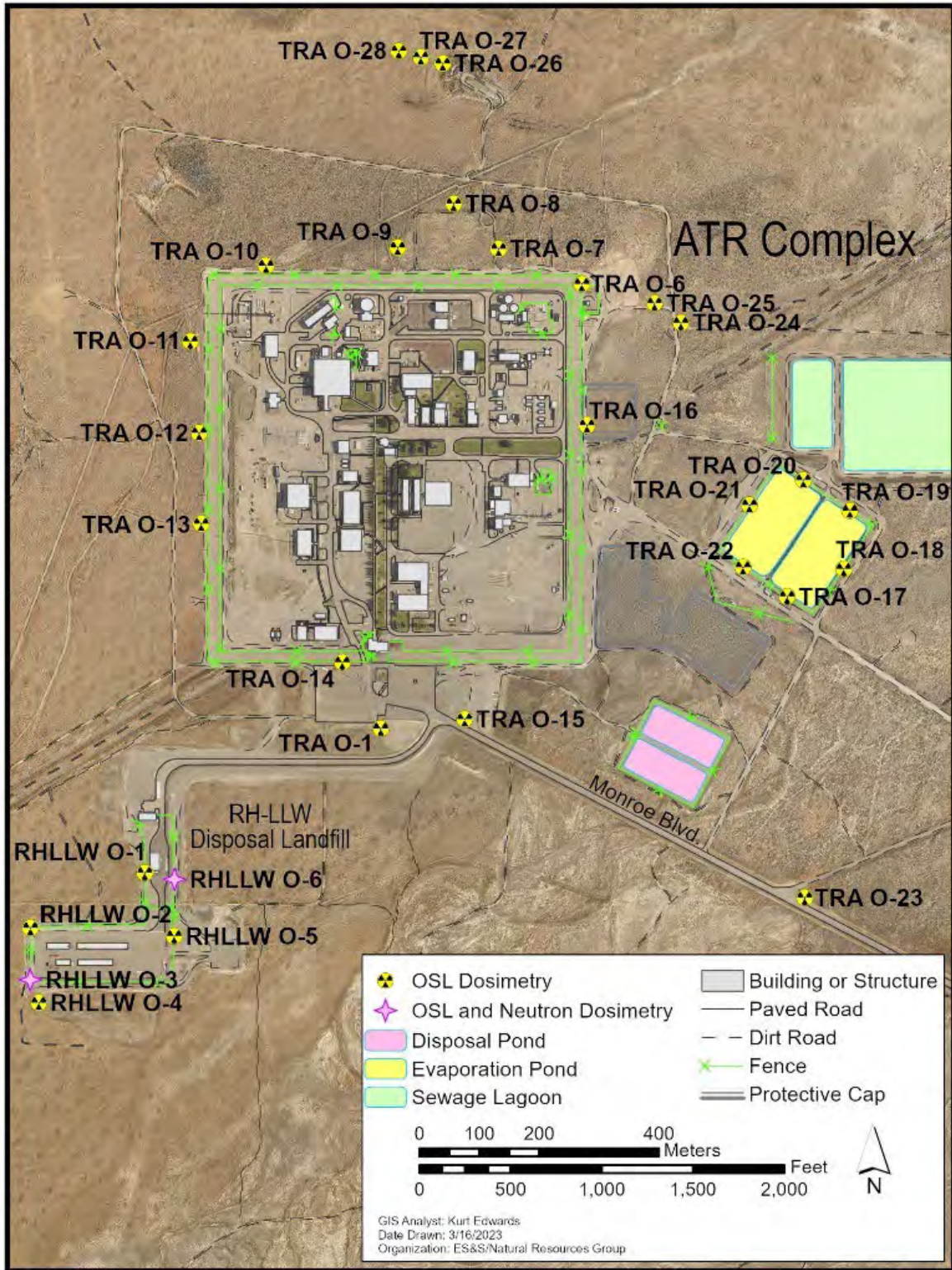


Figure B-2. Environmental radiation measurements at Advanced Test Reactor (ATR) Complex and Remote-Handled Low-Level Waste Disposal Facility (RHLLW) (2022).



Table B-3. Results of environmental radiation measurements at Central Facilities Area (CFA) and Lincoln Boulevard (2022).

LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
CFA ^b O-1	66	73
LincolnBlvd ^c O-1	71	63

- a. Millirem (mrem) in ambient dose equivalent.
- b. Central Facilities Area (CFA).
- c. Lincoln Boulevard (LincolnBlvd).

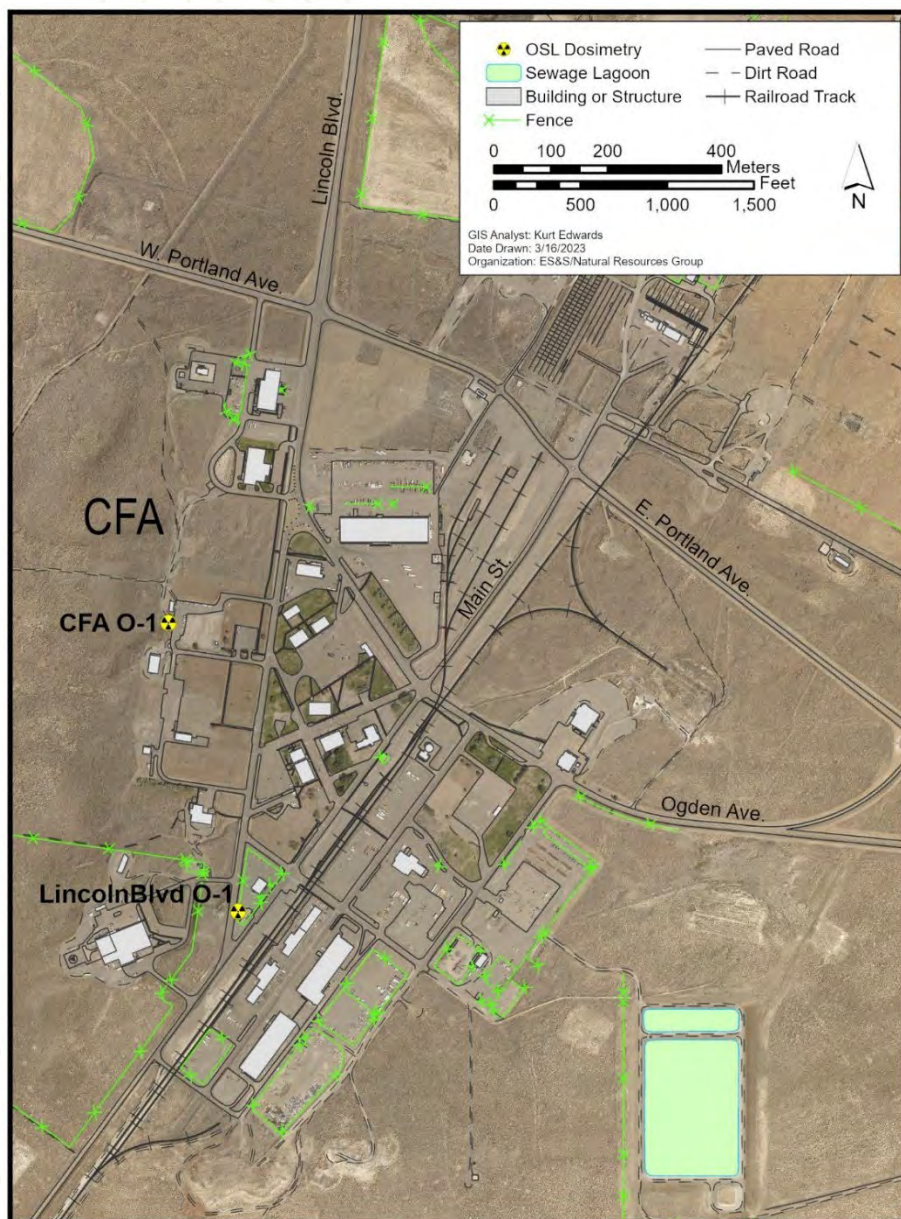


Figure B-3. Environmental radiation measurements at Central Facilities Area (CFA) and Lincoln Boulevard (2022).



Table B-4. Results of environmental radiation measurements at Idaho Nuclear Technology and Engineering Center (INTEC) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
ICPP ^b O-9	86	86	ICPP O-26	72	72
ICPP O-14	107	101	ICPP O-27	184	233
ICPP O-15	160	145	ICPP O-28	196	183
ICPP O-17	70	78	ICPP O-30	219	206
ICPP O-19	101	93	TreeFarm O-1	119	138
ICPP O-20	294	325	TreeFarm O-2	78	91
ICPP O-21	84	95	TreeFarm O-3	86	98
ICPP O-22	98	92	TreeFarm O-4	126	140
ICPP O-25	82	92			

a. Millirem (mrem) in ambient dose equivalent.

b. Idaho Chemical Processing Plant (ICPP).

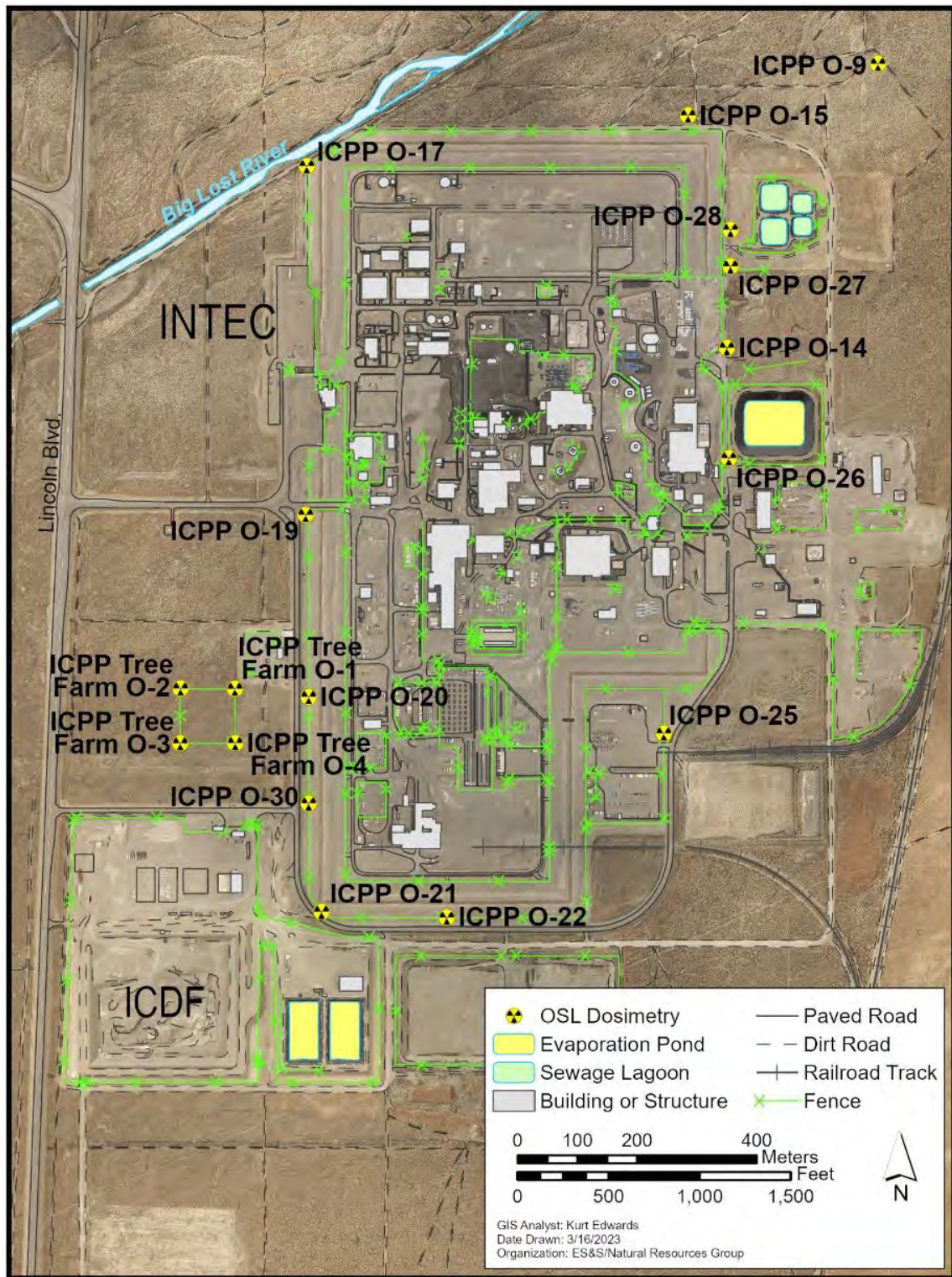
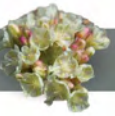


Figure B-4. Environmental radiation measurements at Idaho Nuclear Technology and Engineering Center (INTEC) (2022).



Table B-5. Results of environmental radiation measurements at Idaho National Laboratory Research Center Complex (IRC) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
IF ^b -603N O-1	57	56	IF-670N O-31	57	53
IF-603E O-2	54	47	IF-670E O-32	53	45
IF-603S O-3	53	52	IF-670S O-33	63	57
IF-603W O-4	61	56	IF-670D O-34	58	53
IF-627 O-30	54	52	IF-670W O-35	63	63
IF-638N O-1	57	59	IF-689 O-7	56	57
IF-638E O-2	56	53	IF-689 O-8	50	53
IF-638S O-3	74	58	IF-IRC ^c O-39	59	59
IF-638W O-4	57	57			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).
- c. INL Research Center (IRC).



Figure B-5. Environmental radiation measurements at Idaho National Laboratory Research Center Complex (IRC) (2022).



Table B-6. Results of environmental radiation measurements at Materials and Fuels Complex (MFC) and Transient Reactor Test (TREAT) Facility (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
ANL ^b O-7	70	64	ANL O-24	68	68
ANL O-8	67	62	ANL O-25	71	68
ANL O-12	57	56	ANL O-26	68	72
ANL O-14	60	71	TREAT ^c O-1	61	62
ANL O-15	66	77	TREAT O-2	66	68
ANL O-16	66	62	TREAT O-3	69	71
ANL O-18	65	62	TREAT O-4	73	71
ANL O-19	59	55	TREAT O-5	63	68
ANL O-20	74	63	TREAT O-6	69	63
ANL O-21	88	88	TREAT O-7	67	71
ANL O-22	81	76	TREAT O-8	66	66
ANL O-23	74	69			

- a. Millirem (mrem) in ambient dose equivalent.
 b. Argonne National Laboratory (ANL).
 c. Transient Reactor Test (TREAT) Facility.

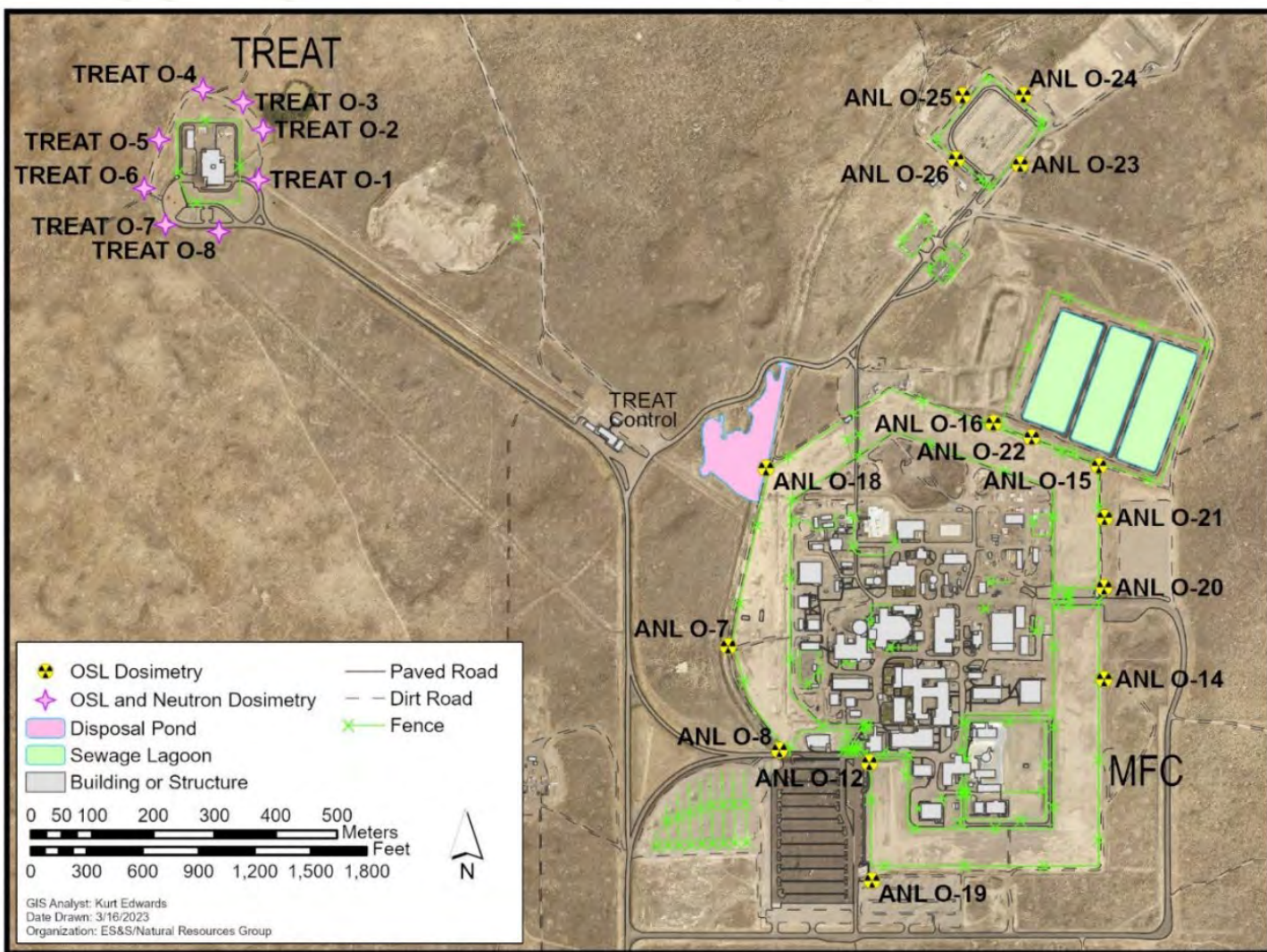


Figure B-6. Environmental radiation measurements at Materials and Fuels Complex (MFC) and Transient Reactor Test (TREAT) Facility (2022).



Table B-7. Results of environmental radiation measurements at Naval Reactors Facility (NRF) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
NRF ^b O-11	66	64	NRF O-21	65	57
NRF O-16	63	65	NRF O-22	60	60
NRF O-18	69	72	NRF O-23	58	57
NRF O-19	69	69	NRF O-24	67	65
NRF O-20	73	64			

a. Millirem (mrem) in ambient dose equivalent.
 b. Naval Reactors Facility (NRF).

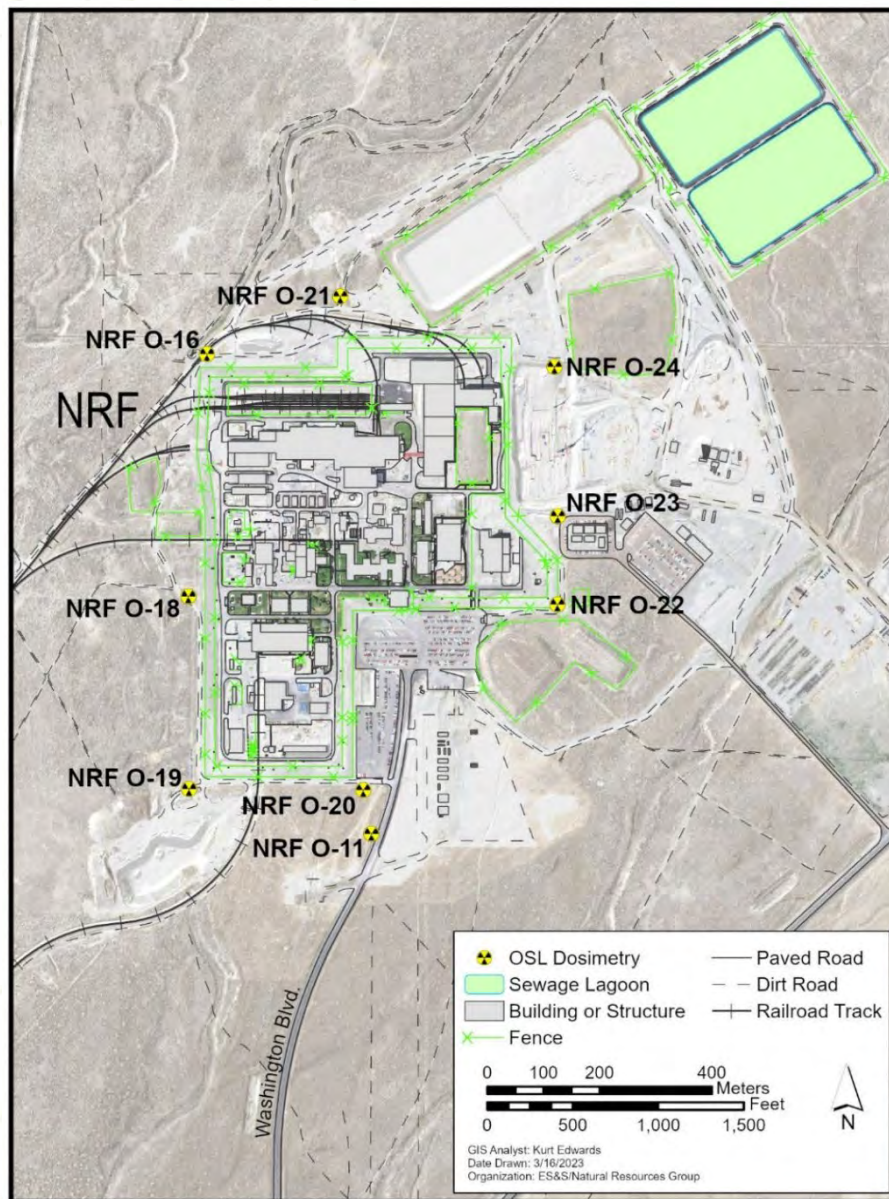


Figure B-7. Environmental radiation measurements at Naval Reactors Facility (NRF) (2022).



Table B-8. Results of environmental radiation measurements at IF-675 Portable Isotopic Neutron Spectroscopy (PINS) Laboratory (2022).

LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
IF ^b -675E O-31	48	55
IF-675D O-33	55	49
IF-675S O-34	62	58
IF-675W O-35	56	54

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).



Figure B-8. Environmental radiation measurements at IF-675 Portable Isotopic Neutron Spectroscopy (PINS) Laboratory (2022).



Table B-9. Results of environmental radiation measurements at Radioactive Waste Management Complex (RWMC) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
RWMC ^b O-3A	68	61	RWMC O-25A	61	67
RWMC O-5A	64	63	RWMC O-27A	67	72
RWMC O-7A	62	58	RWMC O-29A	65	71
RWMC O-9A	85	94	RWMC O-39	68	72
RWMC O-11A	74	73	RWMC O-41	143	154
RWMC O-13A	98	91	RWMC O-43	65	72
RWMC O-19A	72	58	RWMC O-46	64	70
RWMC O-21A	76	61	RWMC O-47	66	61
RWMC O-23A	66	78			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Radioactive Waste Management Complex (RWMC).

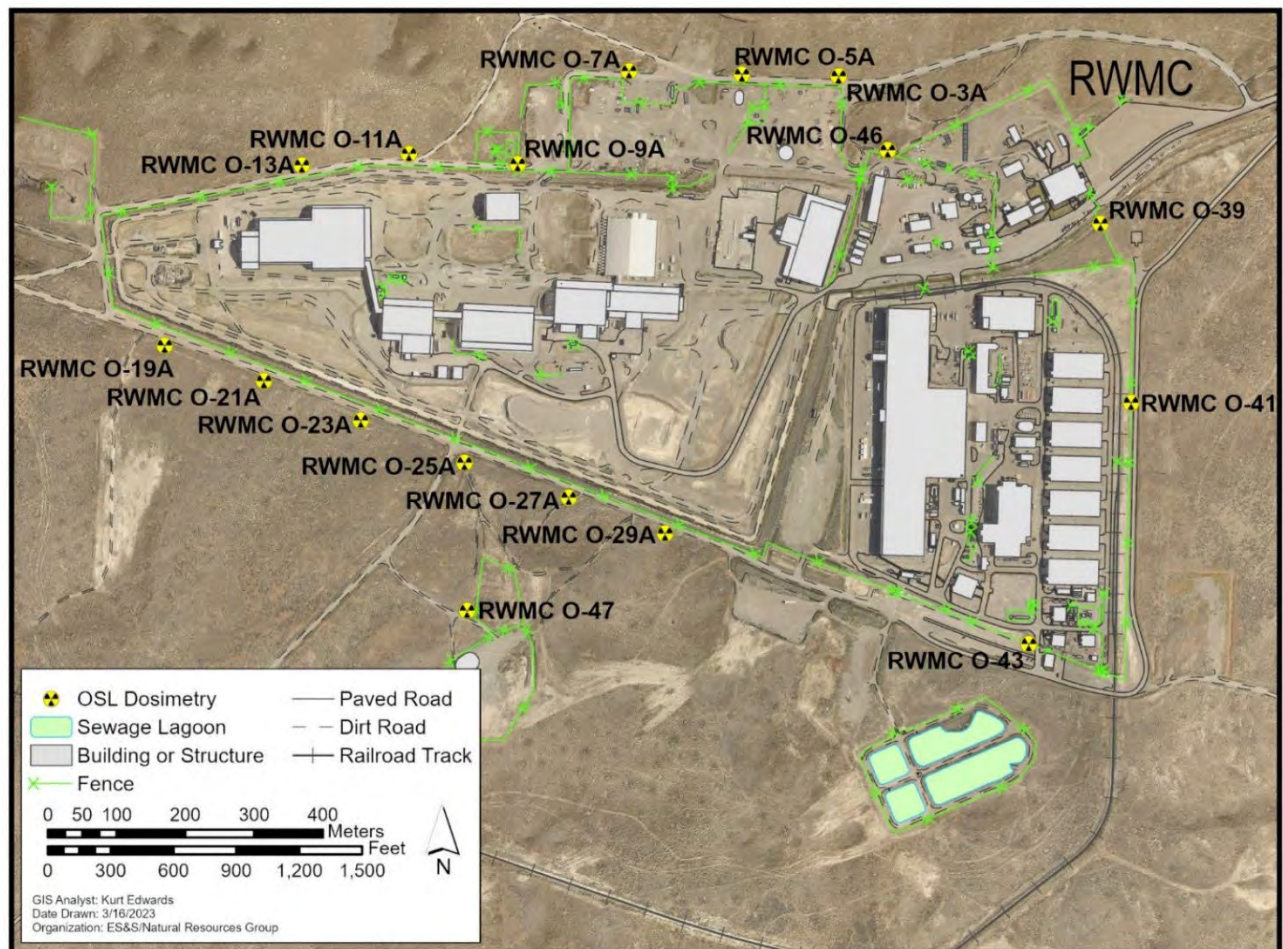


Figure B-9. Environmental radiation measurements at Radioactive Waste Management Complex (RWMC) (2022).



Table B-10. Results of environmental radiation measurements at Specific Manufacturing Capability (SMC) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022		NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
TAN LOFT ^b O-6	62	73	TAN LOFT O-10	72	71
TAN LOFT O-7	72	69	TAN LOFT O-11	66	68
TAN LOFT O-8	61	59	TAN LOFT O-12	55	61
TAN LOFT O-9	52	60	TAN LOFT O-13	71	62

- a. Millirem (mrem) in ambient dose equivalent.
- b. Test Area North, Loss-of-Fluid Test (TAN LOFT).

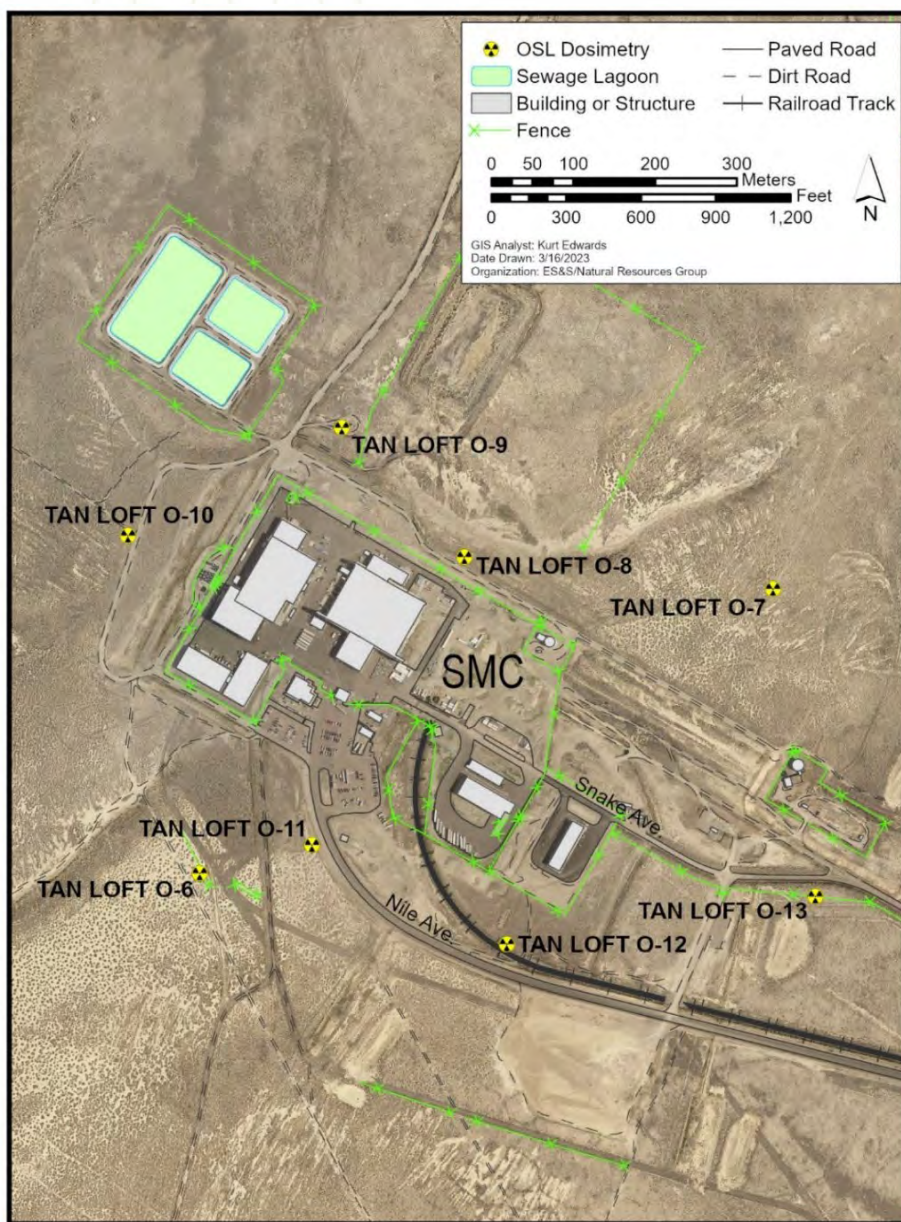


Figure B-1. Environmental radiation measurements at Specific Manufacturing Capability (SMC) (2022).



Table B-11. Results of environmental radiation measurements at sitewide locations (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022		NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
EFS ^b O-1	64	72	Hwy33 T17 O-3	59	61
Gate4 O-1	59	63	LincolnBlvd ^d O-3	71	62
Haul E O-1	62	64	LincolnBlvd O-5	72	69
Haul W O-2	70	65	LincolnBlvd O-9	70	74
Hwy ^c 20 Mile O-266	64	64	LincolnBlvd O-15	74	78
Hwy20 Mile O-270	Lost	59	LincolnBlvd O-25	64	68
Hwy20 Mile O-276	64	68	Main Gate O-1	64	66
Hwy22 T28 O-1	59	78	Rest ^e O-1	62	62
Hwy28 N2300 O-2	53	51	VanB ^f O-1	66	71

- a. Millirem (mrem) in ambient dose equivalent.
- b. Experimental Field Station (EFS).
- c. Highway (Hwy).
- d. Lincoln Boulevard (LincolnBlvd).
- e. Rest Area Highway 26 (Rest).
- f. Van Buren (VanB).

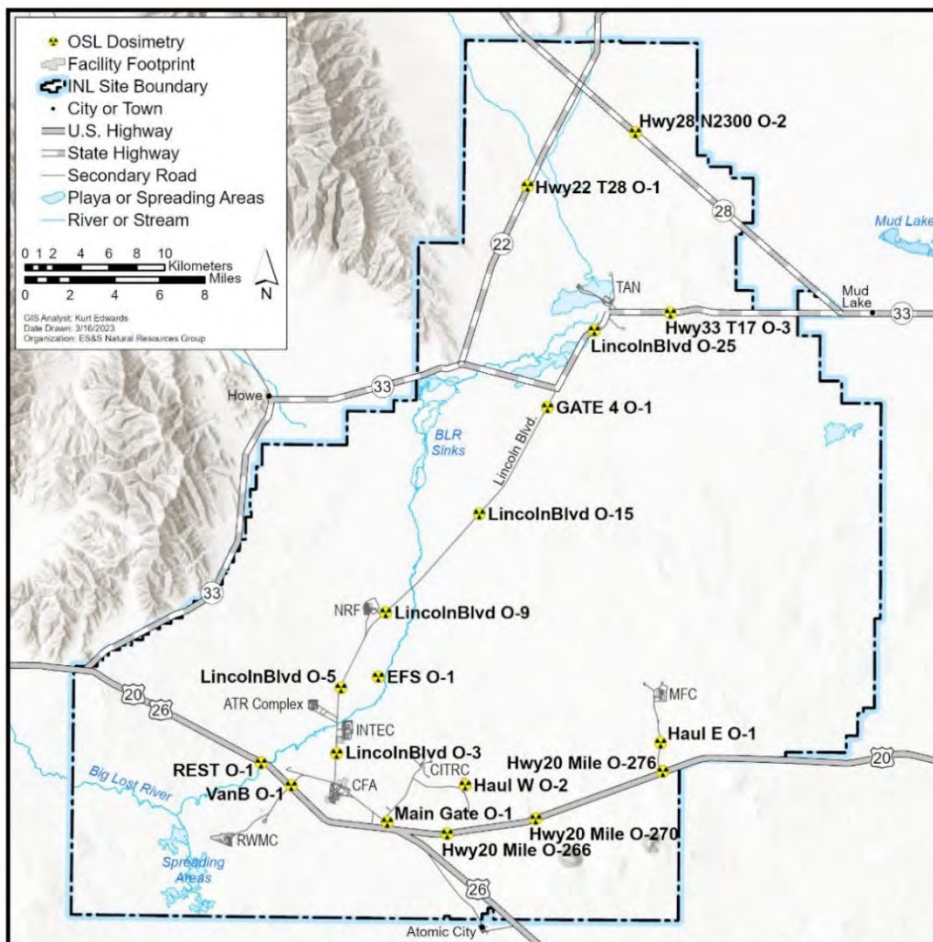


Figure B-11. Environmental radiation measurements at sitewide locations (2022).



Table B-12. Environmental radiation measurements at regional locations (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022		NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
Aberdeen E-1	58 ^e	72	Minidoka E-1	54 ^e	56
Arco E-1	57 ^e	58	Monteview E-1	56 ^e	63
Arco O-1	55	58	Monteview O-4	63	67
Atomic City E-1	58 ^e	67	Mountain View E-1	51 ^e	58
Atomic City O-2	60	63	Mud Lake E-1	62 ^e	73
Blackfoot O-9	57	55	Mud Lake O-5	67	74
Blue Dome E-1	47 ^e	47	Reno Ranch E-1	55 ^e	58
Craters ^b E-1	53 ^e	64	Reno Ranch O-6	56	55
Craters O-7	56	63	Roberts E-1	64 ^e	74
Dubois E-1	49 ^e	50	RobNOAA ^c	66	63
Howe E-1	58 ^e	59	RRL ^d 3 O-1	63	60
Howe O-3	54	51	RRL5 O-1	75	78
Idaho Falls E-1	54 ^e	65	RRL6 O-1	67	62
Idaho Falls O-10	59	56	RRL17 O-1	63	59
Idaho Falls-IDA O-38	50	52	RRL24 O-1	60	57
Jackson E-1	56 ^e	58	Sugar City E-1	71 ^e	64

a. Millirem (mrem) in ambient dose equivalent.

b. Craters of Moon (Craters).

c. Roberts National Oceanic and Atmospheric Administration (RobNOAA).

d. Resident Receptor Location (RRL).

e. Past Environmental Surveillance, Education and Research Program location that was incorporated into the INL Environmental Dosimetry program. The first dosimeter for this location, under the INL contractor, was placed in the field on May 1, 2022. These locations are identified with an E- and corresponding number.

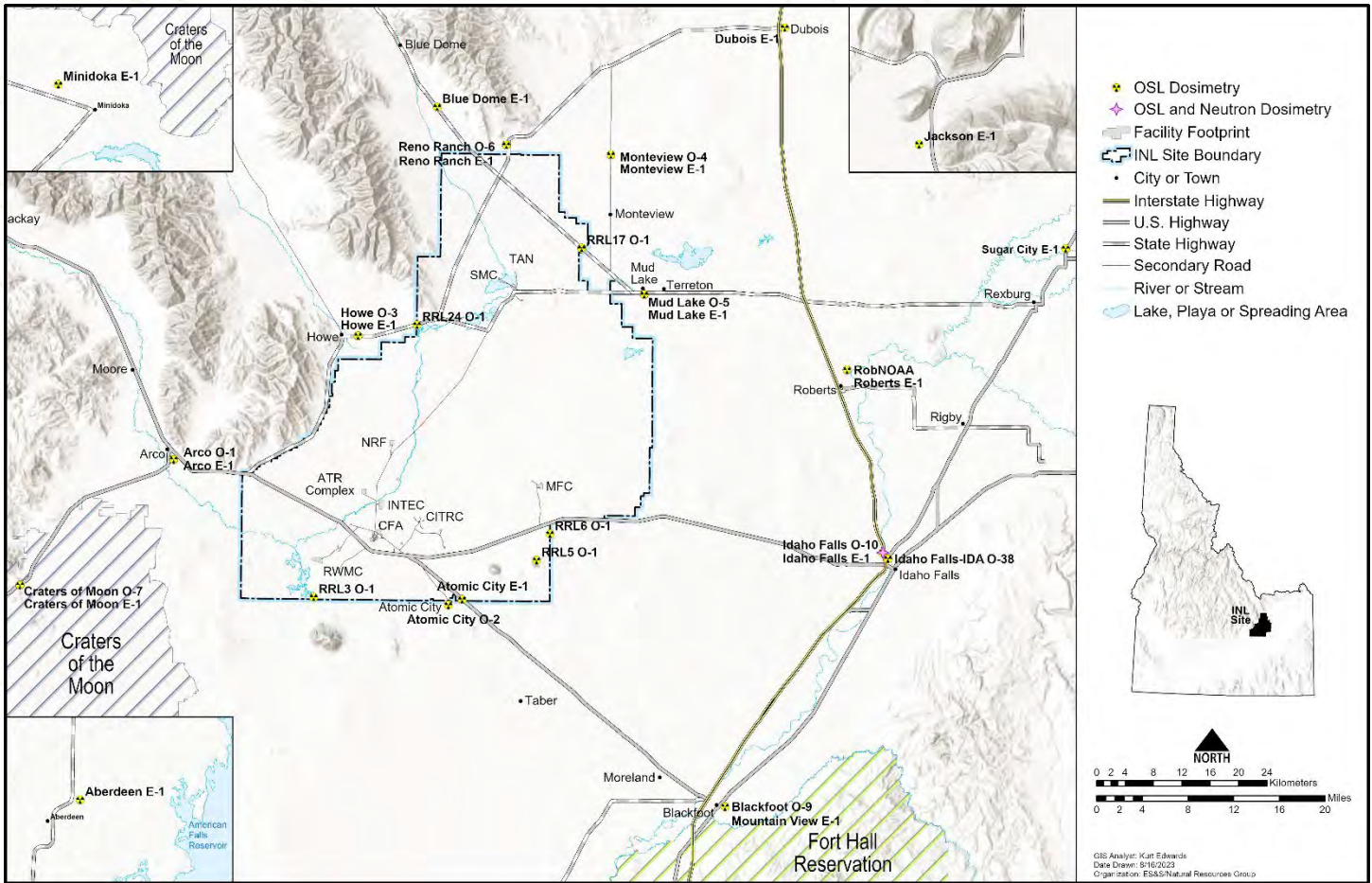


Figure B-12. Environmental radiation measurements at regional locations (2022).



Table B-13. Results of environmental radiation measurements at Willow Creek Building (WCB) and Center for Advanced Energy Studies (CAES) (2022).

LOCATION	mrem ^a		LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022		NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
IF ^b -616N O-36	53	57	IF-665 O-4	49	59
IF-665 O-1	44	47	IF-665 O-5	52	56
IF-665 O-2	56	58	IF-665W O-37	60	50
IF-665 O-3	52	54			

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).



Figure B-13. Environmental radiation measurements at Willow Creek Building (WCB) and Center for Advanced Energy Studies (CAES) (2022).



Table B-14. Results of environmental radiation measurements at Experimental Breeder Reactor I (EBR-I) (2022).

LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
EBR1 ^b O-1	63	56
EBR1 O-2	92	87
EBR1 O-3	263	235

- a. Millirem (mrem) in ambient dose equivalent.
- b. Experimental Breeder Reactor I (EBR-I).

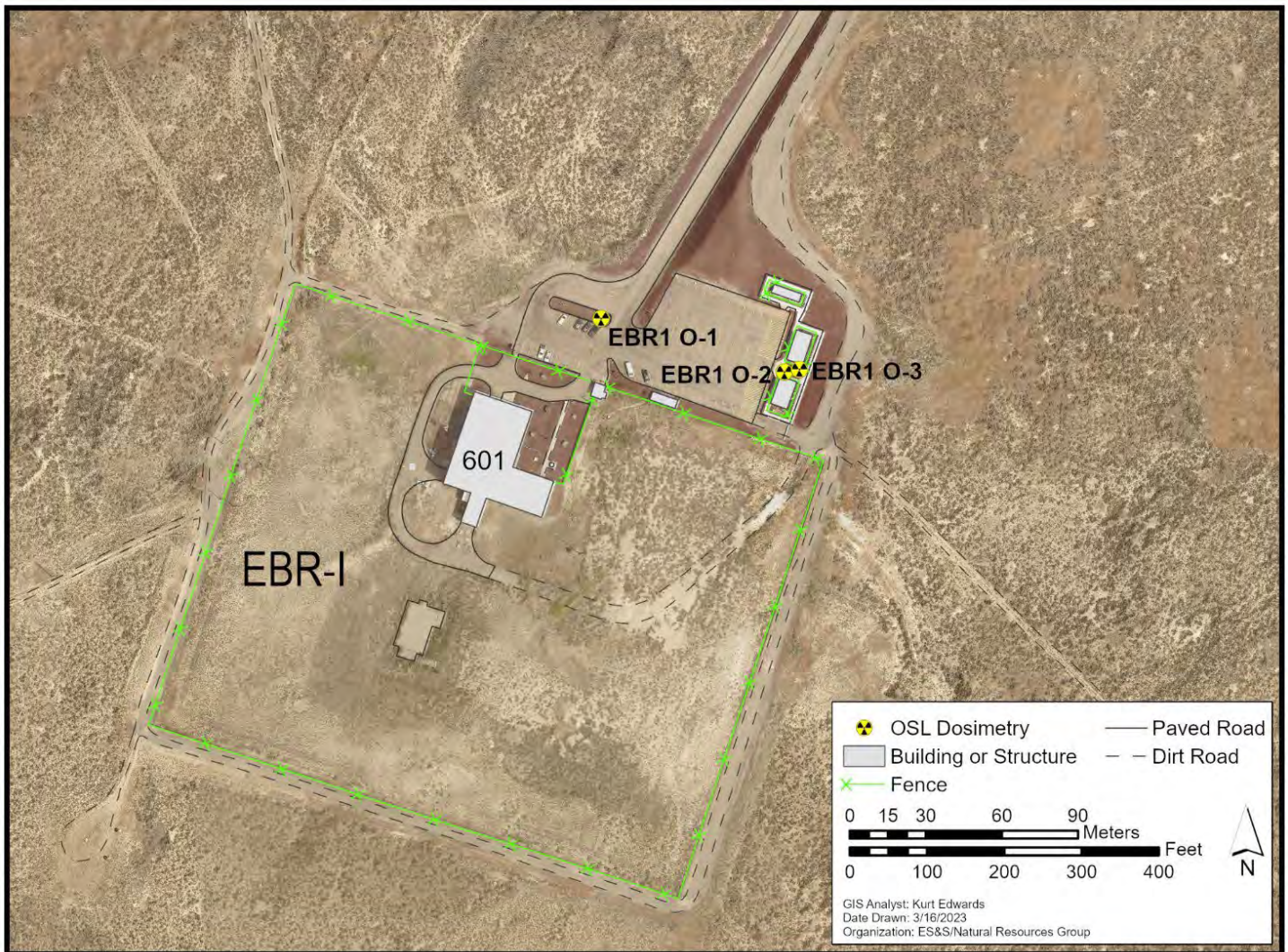


Figure B-14. Environmental radiation measurements at Experimental Breeder Reactor I (EBR-I) (2022).



Table B-15. Results of environmental radiation measurements at Energy Innovation Laboratory (EIL) (2022).

LOCATION	mrem ^a	
	NOV. 2021 – APRIL 2022	MAY 2022 – OCT. 2022
IF ^b -688B O-1	54	49
IF-688B O-2	52	50

a. Millirem (mrem) in ambient dose equivalent.
 b. Idaho Falls (IF).



Figure B-15. Environmental radiation measurements at Energy Innovation Laboratory (EIL) (2022).



Table B-16. Results of environmental radiation measurements at Lindsay Building IF-652A.

LOCATION	mrem ^a	
	NOV. 2021– APRIL 2022	MAY 2022– OCT. 2022
IF-652A ^b O-1	new location	67
IF-652A O-2	new location	Lost
IF-652A O-3	new location	67
IF-652A O-4	new location	76

- a. Millirem (mrem) in ambient dose equivalent.
- b. Idaho Falls (IF).



Figure B-16. Environmental radiation measurements at Lindsay Building IF-652A (2022).