

Stormwater Screening Levels and Summary Data
 (Screening level and data tables to support the August 2017 West Lake Landfill
 Stormwater and Sediment Update Fact Sheet)

Exposure Parameters*	
Exposure Time (hours/day)	2
Exposure Frequency (days/year)	32
Exposure Duration (years)	10
Water Intake Rate (liters/hour)	0.05
*Parameters for a trespasser scenario involving wading in water in ditches surrounding the Site.	

Stormwater Screening Levels		
Contaminant	PRG¹	Unit²
U-235	42.7	pCi/L
U-238	358.5	pCi/L
U-234	442.5	pCi/L
Total U	131.0	ug/L
Th-230	342.5	pCi/L
Ra-226	10.2	pCi/L
Th-232	309.6	pCi/L
Ra-228	30.1	pCi/L
Th-228	104.0	pCi/L
¹ Preliminary Remediation Goal (PRG) is based on a one in 1,000,000 excess lifetime cancer risk or a hazard quotient of 0.1. ² Units - picocuries per liter (pCi/L) and micrograms per liter (ug/L)		

Sample Point	Sample Date	Gross Alpha		Corrected for standard ¹	Gross Beta		Radium-226		Radium-228		Total Radium Result	Thorium-230		Thorium-232		Total Uranium		Uranium-234		Uranium-235		Uranium-238	
		Result	Final Q		Result	Final Q	Result	Final Q	Result	Final Q		Result	Final Q	Result	Final Q	Result	Final Q	Result	Final Q	Result	Final Q	Result	Final Q
2015 MDNR	12/28/15	7.94	J	4.91	12.4		-0.40	U	0.96	U	0.56	NA		NA		NA		1.47		0.22	U	1.34	
NCC-001	3/10/16	NA			NA		0.86	J	-0.04	UJ	0.82	NA		0.11	J	NA		1.75	J	0.21	J	1.53	
NCC-003	3/30/16	NA			NA		0.37	J	0.46	UJ	0.83	NA		0.22	J	NA		3.93	J	0.13	J	2.42	J
NCC-002	3/30/16	NA			NA		0.62	J	0.57	U	1.19	NA		2.17		NA		0.86		0.05	J	0.81	
NCC-003	4/6/16	7.19	J	-1.68	12.32	U	0.96	J	0.90	UJ	1.86	1.14		-0.01	UJ+	NA		5.11	J+	0.50	J	3.26	
NCC-001	4/6/16	16.54		12.65	14.68		0.14	J	1.47	J	1.61	1.34	J	0.49	J	NA		2.47	J+	0.12	J	1.30	J
NCC-002	4/11/16	38.99	J	8.62	22.48	U	1.02	J	0.24	J	1.26	0.72	J	0.03	J+	NA		18.49		0.55	J	11.33	
Buffer Zone	4/26/16	5.30		0.96	10.37		1.20		1.04	J	2.24	0.19	J			NA		2.93		0.17	J	1.25	
NCC-001	5/10/16	13.73	J	11.06	20.76	S-	0.47	J	0.54	U	1.01	1.29	J+	0.02	J	2.42		1.54	J-	0.03	J	1.10	
NCC-003	5/11/16	38.35		30.76	34.00	J-	1.91	J	2.97		4.89	2.53	J+	0.00	U	5.05		3.92	J-	0.38	J	3.30	J
NCC-002	5/11/16	17.15	U	7.02	44.91	UJ-	0.71	J	0.74	J	1.45	0.23	J+			10.49		6.10	J-	0.22	J	3.81	
NCC-004	5/12/16	39.59		34.49	45.02	J	2.06	J	1.80	J	3.85	3.90	J	0.03	J	1.87		2.40		0.47	J	2.23	
NCC-003	7/6/16	89.20		83.73	97.12		2.95		1.64	J	4.59	7.62	J+	-0.02	UJ+	2.83		2.37	J+	0.10	J	2.99	
NCC-001	7/6/16	10.27	J	5.94	13.60	U	0.44	J	0.93	J	1.36	0.22	J+	0.06	J	2.71		2.29	J+	0.71	J	1.33	
NCC-002	7/6/16	40.22		18.02	53.07		0.59	J	0.43	UJ	1.02	0.13	UJ+	0.05	J	27.77		13.87	J+	0.77	J	7.55	
NCC-003	8/15/16	3.51	J	-0.78	6.18	U	-0.01	UJ	0.48	U	0.47	0.34	J			3.64		2.74	J+	0.54	J	1.02	J
NCC-001	8/15/16	6.89	J	2.92	9.60	U	0.12	J	-0.07	U	0.04	0.32	J	0.07	J	5.31		2.73	J+	0.09	J	1.15	J
NCC-002	8/15/16	16.96		7.22	19.55	U	1.19	J	0.32	UJ	1.51	0.08	UJ	0.00	UJ	8.21		6.03	J+	0.31	J	3.39	J
NCC-003	9/9/16	11.69		9.20	16.58		0.86	J	0.83	J+	1.69	1.23	J	0.11	J	2.92		1.57	J+	0.13	J	0.79	J
NCC-001	9/9/16	4.50	U	1.72	7.73	U	0.58	J	0.41	J+	0.99	0.66	J	0.01	UJ+	3.35		1.90	J+	0.03	J	0.84	
NCC-002	9/9/16	10.83		4.37	16.16		0.77	J	0.71	J+	1.48	0.12	U	0.00	UJ	7.36		4.21	J+	0.27	J	1.98	J
NCC-003A	9/16/16	7.08	J	0.44	15.00		0.37	J	0.76	J	1.12	0.08	UJ	1.61	J	6.19		4.34	J	0.09	J	2.20	J
NCC-003A	11/3/16	15.97		5.01	19.51		0.24	J+	2.95	J+	3.19	0.23	J+	2.40		10.30		5.80	J+	0.80	J+	4.35	J+
NCC-001	11/3/16	4.10	J	-1.25	13.46		0.58	J+	2.27	J+	2.85	0.14	UJ+	0.04	U	5.50		2.81	J+	0.41	J+	2.14	J+
NCC-007	11/3/16	5.28	J	1.73	15.05		-0.34	UJ+	2.02	J+	1.68	0.27	J+	0.27	J	3.00		1.93	J+	0.17	J+	1.45	J+
NCC-002	11/3/16	14.56		2.36	17.60	U	2.97	J+	0.85	J+	3.82	0.37	J+	0.07	J	10.10		7.32	J+	0.19	J+	4.68	J+
OU-1-003A	1/20/17	14.72	J	-3.46	12.53	U	0.35	J	0.38	J	0.73	1.59		-0.01	UJ+	24.16		10.90	J+	0.50	J	6.78	J
OU-1-007	1/20/17	7.35	J	1.80	13.34		0.30	J	1.98	J	2.28	0.52	J	2.62	J	11.63		3.30	J+	0.16	J	2.08	J
OU-1-002	1/20/17	17.91	J	-0.79	19.82	U	0.76	J	0.62	J	1.39	0.97		-0.01	UJ+	27.78		10.91	J+	0.58	J	7.21	J
OU-1-001	1/20/17	7.89	J	-1.31	22.33	U	0.30	J	2.04		2.34	0.25	J	0.02	UJ	10.91		6.23	J+	0.20	J	2.78	
OU-1-007	2/21/17	2.35	UJ+	-2.80	29.89		0.32	J	0.38	UJ	0.69	3.18	J+	0.02	UJ+	0.89	U	4.12	J+	0.35	J	0.67	J
OU-1-001	2/21/17	-3.90	UJ+	-9.29	28.91	U	0.37	J	0.42	U	0.79	6.83	J+	0.05	J+	2.08		3.88	J+	0.17	J	1.34	J
OU-1-003A	3/1/17	8.48	J	0.76	11.61	U	0.36	J	1.08	J+	1.43	0.48	J+	0.17	J	8.74		4.63	J+	0.27	J	2.83	
OU-1-007	3/1/17	2.21	J	-0.17	15.09		0.14	J	0.56	J+	0.70	0.41	J+	0.08	J+	2.02		1.62	J+	0.10	J	0.65	J
OU-1-001	3/1/17	0.00	U	-5.13	13.52	U	0.37	J	0.82	J+	1.19	0.31	J+	0.22	J	4.27		3.12	J+	0.17	J	1.84	J
OU-1-002	3/27/17	13.23	J	-3.76	22.74		0.59	J	-0.24	U	0.35	0.31	J	2.99	J	21.91		10.13	J+	0.53	J	6.33	J
OU-1-008	3/30/17	3.14	J	-2.78	19.21		0.10	J	0.60	J	0.70	0.51	J	0.08	J	6.57		3.08	J+	0.50	J	2.35	J
OU-1-002	4/5/2017	10.07	J	-5.22	18.25		0.57	J	0.81	J	1.39	0.20	J+	0.06	J+	18.63		9.40		0.63		5.25	
OU-1-007	4/5/2017	5.74		2.91	10.22		0.64	J	1.35		1.99	0.51	J+	0.02	UJ+	1.81		1.75	J	0.19	J	0.89	J
OU-1-001	4/5/2017	6.29		0.63	8.82		1.39		0.33	U	1.72	0.22	UJ+	-0.02	UJ+	5.33		3.75		0.20	J	1.70	
OU-1-003A	4/5/2017	5.94	J	-1.37	17.27		0.26	J	1.06		1.32	0.45	J+	-0.08	UJ+	7.84		4.35	J	0.24	J	2.72	J
OU-1-004	4/5/2017	-0.17	U	-0.92	6.62	U	0.16	J	0.72	J	0.88	0.30	J+	0.17	J+	-0.62		0.37	J	0.13	J	0.25	J
OU-1-008	4/5/2017	10.45	J	4.76	23.68		0.33	J	0.47	U	0.81	0.35	J+	0.11	J+	5.68		3.64	J	0.10	J	1.96	J
OU-1-006	4/29/2017	3.65	U	1.26	6.07	U	0.46	J	0.57	J	1.03	0.24	J	0.07	J+	1.12		1.33	J	0.09	J	0.97	J
2017 MDNR	4/30/2017	15.65	J	13.21	27.45		0.73	U	1.49		2.22	2.55		1.54		NA		1.15		0.11	U	1.18	

MDNR Lab Duplicate	4/30/2017	20.61		16.22	22.22		2.10	J	0.28	U	2.38	2.12		0.97	J	NA		2.03		0.65	J	1.71	
2017 PRP ^a	4/30/2017	34.49	J	31.84	23.06	J-	2.23	J	1.53	J	3.76	1.11	J+	1.42	J+	2.22		1.27	J	0.40	J	0.98	J
OU-1-009	4/30/2017	0.43	U	-2.78	11.81		0.28	J	0.27	J	0.55	0.22	J	-0.01	UJ+	3.62		1.80	J	0.16	J	1.24	J
OU-1-010	4/30/2017	53.68		-1.62	36.29	U	1.23	J	0.27	J	1.50	0.05	UJ	-0.05	UJ+	62.65		34.82		1.59		18.89	
OU-1-011	4/30/2017	17.54		6.75	13.34		0.81	J	0.59	J	1.40	0.20	UJ	0.04	J+	11.26		6.28	J	0.34	J	4.17	J
OU-1-007	5/3/2017	4.61	J	3.44	6.55	U	0.06	J	0.29	UJ	0.36	0.28	J+	0.14	J+	0.04	U	0.63		0.03	J	0.51	J
OU-1-002	5/3/2017	10.47		2.94	18.08		0.29	J	0.56	UJ	0.85	0.22	J+	0.02	J+	7.59		4.52		0.25	J	2.76	
OU-1-008	5/3/2017	0.67	U	-2.02	10.92		0.01	UJ	0.39	UJ	0.40	0.26	J+	0.04	UJ+	2.16		1.42	J	0.17	J	1.10	J
OU-1-001	5/3/2017	3.06	U	0.69	19.15		0.28	J	4.22	J	4.50	0.14	UJ+	-0.03	UJ+	1.30		1.48		0.09	J	0.80	
OU-1-004	5/3/2017	1.63	U	0.79	10.03		0.30	J	2.05		2.35	0.41	J+	0.06	J+	-0.33	U	0.53	J	0.07	J	0.24	J
OU-1-003A	5/3/2017	4.84		1.57	10.69		0.09	J	0.19	UJ	0.27	0.26	J+	0.00	UJ+	3.09		1.56		0.15	J	1.56	
OU-1-011	5/4/2017	9.35		4.63	7.13		0.67	J	0.34	UJ	1.01	0.38	J+	0.05	J+	5.15		2.64		0.11	J	1.96	
OU-1-010	5/4/2017	27.90		4.55	13.14	U	0.34	J	0.27	UJ	0.61	0.05	UJ+	0.01	UJ+	20.79		14.02	J	0.82	J	8.52	J
OU-1-009	5/4/2017	14.50		10.26	28.31		0.57	J	0.61	J	1.18	0.97	J+	0.44	J+	4.40		2.46		0.18	J	1.59	J

¹The maximum contaminant level (MCL) for drinking water associated with gross alpha is 15 pCi/L including radium 226, excluding uranium and radon. The isotopic uranium results from each sample have been subtracted from the gross alpha result to better compare to the MCL.

^a Collected by MDNR and PRPs on April 30th

Note: All results are in units of pCi/L except total uranium which is ug/L.

Data Validation Qualifiers (Final Q) include: U = Non-detect at the reported value, UJ = Non-Detect at the estimated reported value,

UJ+ = Non-Detect at the estimated reported value which may be biased high;

UJ- = Non-Detect at the estimated reported value which may be biased low;

J = estimated result as reported by laboratory; J+ = estimated result which may be biased high as reported by laboratory; J- = estimated result which may be biased low as reported by laboratory.