



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 14-0710

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0710-01	Sample ID: R 94756 Sample Type: Vegetation	Time Collected: 10/15/2014 9:51	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.192		
K-40	HASL Ga-01-R	65.5 +/- 3.45	1.19	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquate root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0708

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0708-01	Sample ID: R 94754 Sample Type: Vegetation	Time Collected: 10/15/2014 9:21	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.165		
K-40	HASL Ga-01-R	60.0 +/- 2.82	1.52	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0709

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0709-01	Sample ID: R 94755 Sample Type: Vegetation	Time Collected: 10/15/2014 8:55	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.167		
K-40	HASL Ga-01-R	70.1 +/- 4.34	0.761	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_b is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0711

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0711-01	Sample ID: R 94757 Sample Type: Vegetation	Time Collected: 10/15/2014 8:16	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.237		
K-40	HASL Ga-01-R	44.1 +/- 1.97	0.632	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_b is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0419

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0419-01	Sample ID: R 80148 Sample Type: Vegetation	Time Collected: 6/11/2014 10:25	Sampling Point: Leafy Sorrel	
Dry Wt/Wet Wt		0.087		
K-40	HASL Ga-01-R	40.8 +/- 0.971	0.992	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_b is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0420

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0420-01	Sample ID: R 76405 Sample Type: Vegetation	Time Collected: 6/11/2014 9:20	Sampling Point: Leafy Sorrel	
Dry Wt/Wet Wt		0.146		
K-40	HASL Ga-01-R	39.3 +/- 1.04	0.797	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0273

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0273-01	Sample ID: R 94372 Sample Type: Biota	Time Collected: 4/15/2014 10:09	Sampling Point: Klep	
Dry Wt/Wet Wt		0.187		
K-40	HASL Ga-01-R	60.6 +/- 1.87	0.664	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0272

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0272-01	Sample ID: R 94371 Sample Type: Biota	Time Collected: 4/15/2014 9:35	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.213		
K-40	HASL Ga-01-R	43.0 +/- 1.33	0.522	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_b is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0274

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0274-01	Sample ID: R 94373 Sample Type: Biota	Time Collected: 4/15/2014 9:09	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.129		
K-40	HASL Ga-01-R	75.1 +/- 1.91	0.945	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the square root of the instrument background count rate.



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FINAL Analysis Results Report for Task ID. 14-0275

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0275-01	Sample ID: R 94374 Sample Type: Biota	Time Collected: 4/15/2014 8:21	Sampling Point: Kelp	
Dry Wt/Wet Wt		0.175		
K-40	HASL Ga-01-R	93.3 +/- 2.12	1.95	pCi/g dry wt

- (1) Precision criteria for these method were determined to be acceptable.
- (2) CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.
- (3) MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 divided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radio-nuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where S_b is the square root of the instrument background count rate.