



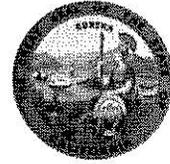
State of California - Health and Human Services Agency

California Department of Public Health

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. 14-0753

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0753-01				
Sample ID: Third quarter Time Collected: 8/12/2014 14:00 Sampling Point: Eureka				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0446 +/- 0.00160	0.00294	pCi/m3
Potassium-40	HASL Ga-01-R	-0.000328 +/- 0.000586	0.00277	pCi/m3
Niobium-95	HASL Ga-01-R	-0.0000525 +/- 0.0000953	0.000429	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.0000369 +/- 0.0000818	0.000298	pCi/m3
Ruthenium-103	HASL Ga-01-R	-0.0000168 +/- 0.0000683	0.000309	pCi/m3
Ruthenium-106	HASL Ga-01-R	0.0000124 +/- 0.000154	0.000705	pCi/m3
Cesium-137	HASL Ga-01-R	0.00000558 +/- 0.0000151	0.0000678	pCi/m3
Cerium-141	HASL Ga-01-R	0.000550 +/- 0.000234	0.00107	pCi/m3
Cerium-144	HASL Ga-01-R	-0.0000862 +/- 0.0000915	0.000397	pCi/m3

- (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. 14-0754

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0754-01				
Sample ID: third quarter a Time Collected: 7/18/2014 12:32 Sampling Point: Humboldt Bay Power Plant				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0284 +/- 0.00230	0.00795	pCi/m3
Potassium-40	HASL Ga-01-R	-0.000888 +/- 0.00136	0.00645	pCi/m3
Niobium-95	HASL Ga-01-R	0.0000635 +/- 0.000333	0.00155	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.000253 +/- 0.000244	0.000872	pCi/m3
Ruthenium-103	HASL Ga-01-R	0.000235 +/- 0.000225	0.00106	pCi/m3
Ruthenium-106	HASL Ga-01-R	0.000221 +/- 0.000329	0.00154	pCi/m3
Cesium-137	HASL Ga-01-R	0.0000484 +/- 0.0000316	0.000150	pCi/m3
Cerium-141	HASL Ga-01-R	-0.000867 +/- 0.000966	0.00455	pCi/m3
Cerium-144	HASL Ga-01-R	-0.0000978 +/- 0.000168	0.000728	pCi/m3

- (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. 14-0756

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0756-01				
Sample ID: third quarter a Time Collected: 8/12/2014 9:40 Sampling Point: Richmond				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0471 +/- 0.00231	0.00355	pCi/m3
Potassium-40	HASL Ga-01-R	-0.000305 +/- 0.000543	0.00259	pCi/m3
Niobium-95	HASL Ga-01-R	0.000290 +/- 0.000173	0.000797	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.0000952 +/- 0.0000976	0.000355	pCi/m3
Ruthenium-103	HASL Ga-01-R	0.000107 +/- 0.0000795	0.000377	pCi/m3
Ruthenium-106	HASL Ga-01-R	-0.000320 +/- 0.000176	0.000760	pCi/m3
Cesium-137	HASL Ga-01-R	0.0000247 +/- 0.0000166	0.0000801	pCi/m3
Cerium-141	HASL Ga-01-R	-0.0000196 +/- 0.0000417	0.00195	pCi/m3
Cerium-144	HASL Ga-01-R	0.0000258 +/- 0.000110	0.000483	pCi/m3

- (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. 14-0755

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0755-01				
Sample ID: third quarter a Time Collected: 8/9/2014 14:59 Sampling Point: Livermore				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0997 +/- 0.00369	0.00274	pCi/m3
Potassium-40	HASL Ga-01-R	0.00136 +/- 0.000542	0.00247	pCi/m3
Niobium-95	HASL Ga-01-R	0.00000625 +/- 0.0000820	0.000372	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.0000298 +/- 0.0000719	0.000270	pCi/m3
Ruthenium-103	HASL Ga-01-R	0.000103 +/- 0.0000605	0.000286	pCi/m3
Ruthenium-106	HASL Ga-01-R	0.0000158 +/- 0.000118	0.000539	pCi/m3
Cesium-137	HASL Ga-01-R	0.00000549 +/- 0.0000115	0.0000537	pCi/m3
Cerium-141	HASL Ga-01-R	-0.000127 +/- 0.000233	0.00110	pCi/m3
Cerium-144	HASL Ga-01-R	-0.000116 +/- 0.0000717	0.000305	pCi/m3

- (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. 14-0758

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0758-01 Sample ID: third quarter a Time Collected: 8/11/2014 16:00 Sampling Point: San Diego Sample Type: Air Composite <i>San Luis Obispo</i>				
Beryllium-7	HASL Ga-01-R	0.0618 +/- 0.00295	0.00380	pCi/m3
Potassium-40	HASL Ga-01-R	0.000265 +/- 0.00633	0.00297	pCi/m3
Niobium-95	HASL Ga-01-R	0.000110 +/- 0.000138	0.000655	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.0000816 +/- 0.000129	0.000385	pCi/m3
Ruthenium-103	HASL Ga-01-R	-0.0000142 +/- 0.0000998	0.000455	pCi/m3
Ruthenium-106	HASL Ga-01-R	0.000354 +/- 0.000184	0.000898	pCi/m3
Cesium-137	HASL Ga-01-R	0.0000404 +/- 0.0000203	0.0000991	pCi/m3
Cerium-141	HASL Ga-01-R	-0.000226 +/- 0.000477	0.00224	pCi/m3
Cerium-144	HASL Ga-01-R	-0.000102 +/- 0.000130	0.000566	pCi/m3

- (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. 14-0752

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0752-01				
Sample ID: third quarter a Time Collected: 8/11/2014 14:30 Sampling Point: Diabio Canyon Power Plant				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0686 +/- 0.00269	0.00257	pCi/m3
Potassium-40	HASL Ga-01-R	0.00146 +/- 0.000570	0.00261	pCi/m3
Niobium-95	HASL Ga-01-R	-0.000197 +/- 0.0000913	0.000392	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.000168 +/- 0.0000798	0.000282	pCi/m3
Ruthenium-103	HASL Ga-01-R	0.0000214 +/- 0.0000652	0.000296	pCi/m3
Ruthenium-106	HASL Ga-01-R	0.000134 +/- 0.000134	0.000624	pCi/m3
Cesium-137	HASL Ga-01-R	0.00000618 +/- 0.0000124	0.0000577	pCi/m3
Cerium-141	HASL Ga-01-R	0.000320 +/- 0.000187	0.000866	pCi/m3
Cerium-144	HASL Ga-01-R	0.0000975 +/- 0.0000834	0.000371	pCi/m3

- (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. 14-0759

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0759-01 Sample ID: third quarter a Time Collected: 8/7/2014 16:00 Sampling Point: San Onofre Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.136 +/- 0.00606	0.00512	pCi/m3
Potassium-40	HASL Ga-01-R	0.000295 +/- 0.000701	0.00329	pCi/m3
Niobium-95	HASL Ga-01-R	0.000258 +/- 0.000163	0.000789	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.0000467 +/- 0.000130	0.000500	pCi/m3
Ruthenium-103	HASL Ga-01-R	-0.0000732 +/- 0.000123	0.000543	pCi/m3
Ruthenium-106	HASL Ga-01-R	-0.000376 +/- 0.000211	0.000899	pCi/m3
Cesium-137	HASL Ga-01-R	0.0000249 +/- 0.0000215	0.000102	pCi/m3
Cerium-141	HASL Ga-01-R	-0.000730 +/- 0.000486	0.00230	pCi/m3
Cerium-144	HASL Ga-01-R	0.0000481 +/- 0.000141	0.000629	pCi/m3

- (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.



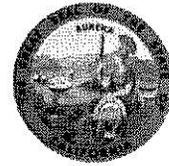
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FINAL Analysis Results Report for Task ID. 14-0757

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 14-0757-01				
Sample ID: third quarter a Time Collected: 8/10/2014 8:34 Sampling Point: San Diego				
Sample Type: Air Composite				
Beryllium-7	HASL Ga-01-R	0.0852 +/- 0.00393	0.00422	pCi/m3
Potassium-40	HASL Ga-01-R	-0.000474 +/- 0.000648	0.00310	pCi/m3
Niobium-95	HASL Ga-01-R	-0.000274 +/- 0.000155	0.000660	pCi/m3
Zirconium-95	HASL Ga-01-R	-0.000216 +/- 0.000133	0.000436	pCi/m3
Ruthenium-103	HASL Ga-01-R	0.00000369 +/- 0.000101	0.000463	pCi/m3
Ruthenium-106	HASL Ga-01-R	-0.0000191 +/- 0.000214	0.000971	pCi/m3
Cesium-137	HASL Ga-01-R	0.0000369 +/- 0.0000214	0.000103	pCi/m3
Cerium-141	HASL Ga-01-R	-0.000260 +/- 0.000511	0.00240	pCi/m3
Cerium-144	HASL Ga-01-R	0.00000301 +/- 0.000137	0.000605	pCi/m3

- (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.