



Howard Backer, M.D., M.P.H.
Interim Director

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



EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0300

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor				
Name:		Organization: Radiologic Health Branch		
Address:				
City: Sacramento	State: CA	Zip Code: 95814-5006	Phone:	
Site and Sample Information				
Collector's Name:	Date/Time Collected: 03/20/2011 09:25	Date/Time Received: 03/22/2011 10:14		
Site Name: Eureka / Air	Source Name:			
R Number: R 93994	Sample Type: Air Filter			
Air Filter Information				
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>
15641.2	03/18/2011 10:00	15996.9	03/20/2011 09:25	355.7

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0300-001	Eureka	HASL Ga-01-R	Ba-140	0.0383 ± 0.0369	0.138	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Ce-141	-0.0171 ± 0.0161	0.0333	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Ce-144	-0.0625 ± 0.0674	0.145	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Cs-134	-0.0113 ± 0.0155	0.0397	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Cs-137	0.0207 ± 0.00953	0.0456	pCi/m3
N11-0300-001	Eureka	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0300-001	Eureka	DOE RP 710	Gross Beta	±		pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	I-132	0 ± 0.0212	0.0616	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Ru-103	-0.00777 ± 0.0134	0.0366	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Ru-106	0.0999 ± 0.0814	0.325	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Te-132	0.0358 ± 0.00951	0.0465	pCi/m3
N11-0300-001	Eureka	HASL Ga-01-R	Zr-95	0.0194 ± 0.0194	0.0560	pCi/m3
N11-0300-002	Eureka	HASL Ga-01-R	Iodine-131	0.488 ± 0.0311	0.0632	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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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Drinking Water and Radiation Laboratory Branch

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Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0302

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor					
Name		Organization: Radiologic Health Branch			
Address:					
City: Sacramento		State: CA		Zip Code: 95814-5006 Phone:	
Site and Sample Information					
Collector's Name		Date/Time Collected: 03/20/2011 15:23		Date/Time Received: 03/22/2011 11:40	
Site Name: Humboldt Bay / Air			Source Name:		
R Number: R 90461			Sample Type: Air Filter		
Air Filter Information					
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>	
74061.3	03/18/2011 13:18	74439.6	03/20/2011 15:23	378.3	

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Ba-140	0.0289 ± 0.0337	0.122	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Ce-141	-0.0133 ± 0.0164	0.0365	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Ce-144	0.0410 ± 0.0471	0.140	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Cs-134	0.000960 ± 0.0130	0.0388	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Cs-137	0.0185 ± 0.0113	0.0468	pCi/m ³
N11-0302-001	Humboldt Bay NPP	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0302-001	Humboldt Bay NPP	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	I-132	-0.0624 ± 0.0353	0.0440	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Ru-103	0.00200 ± 0.00957	0.0314	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Ru-106	0.0809 ± 0.0596	0.274	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Te-132	-0.00214 ± 0.0111	0.0362	pCi/m ³
N11-0302-001	Humboldt Bay NPP	HASL Ga-01-R	Zr-95	-0.0183 ± 0.0357	0.0652	pCi/m ³

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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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850 Marina Bay Parkway, Richmond, CA 94804



EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0289

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor			
Name:	Organization: Radiologic Health Branch		
Address:			
City: Sacramento	State: CA	Zip Code: 95814-5006	Phone

Site and Sample Information			
Collector's Name	Date/Time Collected: 03/20/2011 10:30	Date/Time Received: 03/20/2011 10:30	
Site Name: Richmond / Air	Source Name:		
R Number: R91589	Sample Type: Air Filter		

Air Filter Information					
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>	
3839.8	03/18/2011 09:00	4183.7	03/20/2011 10:30	343.9	

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0289-001	Richmond	HASL Ga-01-R	Ba-140	0.0132 ± 0.0295	0.0927	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Ce-141	0.0130 ± 0.0101	0.0314	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Ce-144	0.0197 ± 0.0461	0.130	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Cs-134	0.0460 ± 0.0126	0.0537	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Cs-137	0.00259 ± 0.0159	0.0476	pCi/m3
N11-0289-001	Richmond	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0289-001	Richmond	DOE RP 710	Gross Beta	±		pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	I-131	0.0874 ± 0.00981	0.0287	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Ru-103	0.00476 ± 0.0101	0.0322	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Ru-106	0.0757 ± 0.0727	0.285	pCi/m3
N11-0289-001	Richmond	HASL Ga-01-R	Zr-95	-0.0152 ± 0.0299	0.0533	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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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EDMUND G. BROWN, JR.
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PRELIMINARY Analysis Results Report for Task ID. N11-0297

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor					
Name		Organization: Radiologic Health Branch			
Address:					
City: Sacramento		State: CA	Zip Code: 95814-5006	Phone:	
Site and Sample Information					
Collector's Name		Date/Time Collected: 03/21/2011 10:08	Date/Time Received: 03/21/2011 11:46		
Site Name: Livermore / Air			Source Name:		
R Number: R 91046			Sample Type: Air Filter		
Air Filter Information					
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>	
31286.1	03/18/2011 14:46	31809.4	03/21/2011 10:08	523.3	

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0297-001	Livermore	HASL Ga-01-R	Ba-140	-0.0207 ± 0.0347	0.0907	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Ce-141	0.00530 ± 0.00941	0.0260	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Ce-144	-0.0106 ± 0.04313	0.102	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Cs-134	-0.0503 ± 0.0189	0.0222	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Cs-137	-0.00287 ± 0.0115	0.0325	pCi/m ³
N11-0297-001	Livermore	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0297-001	Livermore	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	I-131	0.0453 ± 0.00840	0.0413	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Ru-103	0.00224 ± 0.00590	0.0198	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Ru-106	-0.0605 ± 0.0794	0.172	pCi/m ³
N11-0297-001	Livermore	HASL Ga-01-R	Zr-95	0.0151 ± 0.0127	0.0446	pCi/m ³
N11-0297-002	Livermore	HASL Ga-01-R	Iodine-131	1.15 ± 0.0413	0.0367	pCi/m ³

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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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Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0298

Analyst

Analysis Approved By:

Analysis Approval Date:

Requestor				
Name:		Organization: Radiologic Health Branch		
Address:				
City: Sacramento		State: CA	Zip Code: 95814-5006	Phone:
Site and Sample Information				
Collector's Name:		Date/Time Collected: 03/20/2011 12:27	Date/Time Received: 03/22/2011 08:53	
Site Name: Diablo Canyon / Air		Source Name:		
R Number: R 90430		Sample Type: Air Filter		
Air Filter Information				
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>
24679.2	03/18/2011 08:50	25042.1	03/20/2011 12:27	362.9

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Ba-140	-0.0438 ± 0.0565	0.137	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-141	-0.00526 ± 0.0148	0.0352	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-144	0.0124 ± 0.0568	0.150	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-134	0.00563 ± 0.0170	0.0504	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-137	-0.0297 ± 0.0221	0.0468	pCi/m3
N11-0298-001	Diablo Canyon NPP	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0298-001	Diablo Canyon NPP	DOE RP 710	Gross Beta	±		pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	I-131	0.100 ± 0.0143	0.0489	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	I-132	0.0293 ± 0.0284	0.0922	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-103	-0.00238 ± 0.0108	0.0319	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-106	-0.171 ± 0.143	0.308	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Te-132	0.0444 ± 0.0132	0.0568	pCi/m3
N11-0298-001	Diablo Canyon NPP	HASL Ga-01-R	Zr-95	0.0251 ± 0.0163	0.0680	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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.

PRELIMINARY Analysis Results Report for Task ID. N11-0298

N11-0298-002

Diablo Canyon NPP

HASL Ga-01-R

Iodine-131

1.35 ± 0.0546

0.0687

pCi/m3

-
1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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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Drinking Water and Radiation Laboratory Branch

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EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0299

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor				
Name:		Organization: Radiologic Health Branch		
Address:				
City: Sacramento		State: CA	Zip Code: 95814-5006	Phone:
Site and Sample Information				
Collector's Name:		Date/Time Collected: 03/20/2011 11:58	Date/Time Received: 03/22/2011 08:59	
Site Name: San Luis Obispo / Air		Source Name:		
R Number: R 90429		Sample Type: Air Filter		
Air Filter Information				
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>
63611.5	03/18/2011 09:19	63978.4	03/20/2011 11:58	366.9

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Ba-140	0.0364 ± 0.0358	0.124	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Ce-141	0.000293 ± 0.0128	0.0338	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Ce-144	-0.0725 ± 0.0556	0.121	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Cs-134	0.0190 ± 0.0131	0.0437	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Cs-137	0.0488 ± 0.0178	0.0664	pCi/m3
N11-0299-001	San Luis Obispo	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0299-001	San Luis Obispo	DOE RP 710	Gross Beta	±		pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	I-131	0.0897 ± 0.0110	0.0350	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	I-132	0.114 ± 0.0150	0.0922	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Ru-103	0.00778 ± 0.00907	0.0307	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Ru-106	-0.124 ± 0.144	0.268	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Te-132	0.0573 ± 0.00918	0.0344	pCi/m3
N11-0299-001	San Luis Obispo	HASL Ga-01-R	Zr-95	0.00130 ± 0.0258	0.0418	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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.

PRELIMINARY Analysis Results Report for Task ID. N11-0299

N11-0299-002

San Luis Obispo

HASL Ga-01-R

Iodine-131

1.46 ± 0.0582

0.0837

pCi/m3

-
1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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.

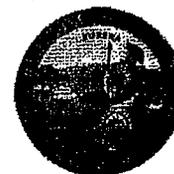


Howard Backer, M.D., M.P.H.
Interim Director

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California Department of Public Health

Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804



EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0301

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor				
Name:	Organization: Radiologic Health Branch			
Address:				
City: Sacramento	State: CA	Zip Code: 95814-5006	Phone: _____	
Site and Sample Information				
Collector's Name:	Date/Time Collected: 03/21/2011 09:30	Date/Time Received: 03/22/2011 10:20		
Site Name: Los Angeles / Air	Source Name:			
R Number: R 93616	Sample Type: Air Filter			
Air Filter Information				
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>
85366.1	03/18/2011 09:00	85863.4	03/21/2011 09:30	497.3

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0301-001	Los Angeles	HASL Ga-01-R	Ba-140	0.0122 ± 0.0251	0.0824	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Ce-141	0.00877 ± 0.00903	0.0262	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Ce-144	0.0267 ± 0.0338	0.0980	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Cs-134	0.0155 ± 0.00599	0.0268	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Cs-137	0.0330 ± 0.00794	0.0412	pCi/m3
N11-0301-001	Los Angeles	DOE RP. 710	Gross Alpha	±		pCi/m3
N11-0301-001	Los Angeles	DOE RP 710	Gross Beta	±		pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	I-131	0.159 ± 0.0110	0.0260	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	I-132	0.0231 ± 0.0117	0.0442	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Ru-103	-0.00463 ± 0.00782	0.0204	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Ru-106	0.0399 ± 0.0681	0.223	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Te-132	0.0242 ± 0.00699	0.0276	pCi/m3
N11-0301-001	Los Angeles	HASL Ga-01-R	Zr-95	0.0205 ± 0.0149	0.0401	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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.

PRELIMINARY Analysis Results Report for Task ID. N11-0301

N11-0301-002

Los Angeles

HASL Ga-01-R

Iodine-131

0.842 ± 0.0346

0.0344

pCi/m3

-
1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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.



Howard Backer, MD, MPH
Interim Director

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



EDMUND G. BROWN JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0303

Analyst:

Analysis Approved By:

Analysis Approval Date:

Requestor			
Name:	Organization: Radiologic Health Branch		
Address:			
City: Sacramento	State: CA	Zip Code: 95814-5006	Phone:

Site and Sample Information			
Collector's Name:	Date/Time Collected: 03/21/2011 09:00	Date/Time Received: 03/22/2011 11:45	
Site Name: San Diego / Air	Source Name:		
R Number: R 90609	Sample Type: Air Filter		

Air Filter Information				
<u>Start Volume</u>	<u>Start Date/Time</u>	<u>End Volume (M)³</u>	<u>End Date/Time</u>	<u>Net Air Volume (M)³</u>
78868.9	03/18/2011 15:07	79316.0	03/21/2011 09:00	447.1

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0303-001	San Diego	HASL Ga-01-R	Ba-140	-0.0144 ± 0.0284	0.0736	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Ce-141	0.00539 ± 0.00849	0.0246	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Ce-144	-0.0625 ± 0.0448	0.0972	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Cs-134	0.0172 ± 0.00659	0.0298	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Cs-137	0.0115 ± 0.0118	0.0398	pCi/m3
N11-0303-001	San Diego	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0303-001	San Diego	DOE RP 710	Gross Beta	±		pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	I-131	0.0765 ± 0.00799	0.0207	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	I-132	0.00332 ± 0.0142	0.0430	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Ru-103	0.00427 ± 0.00804	0.0257	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Ru-106	0.0184 ± 0.0342	0.152	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Te-132	0.0122 ± 0.00869	0.0294	pCi/m3
N11-0303-001	San Diego	HASL Ga-01-R	Zr-95	0.0256 ± 0.0138	0.0340	pCi/m3

1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD₉₅ is defined in section 7020C, 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.

PRELIMINARY Analysis Results Report for Task ID. N11-0303

N11-0303-002

San Diego

HASL Ga-01-R

Iodine-131

1.18 ± 0.0397

0.0503

pCi/m3

-
1. Precision criteria for these methods 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, depending on the particular radionuclide. LLD95 is defined in section 7020C, 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.