



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. N11-0317

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: 03/22/2011 10:00

Date/Time Received: 03/25/2011 09:41

Site Name: Eureka / Air

Source Name: _____

R Number: R 93995

Sample Type: Air Filter

Air Filter Information

Start Volume	Start Date/Time	End Volume (M) ³	End Date/Time	Net Air Volume (M) ³
15996.9	03/20/2011 09:25	16362.4	03/22/2011 10:00	365.5

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0317-001	Eureka	HASL Ga-01-R	Ba-140	-0.0438 ± 0.0467	0.109	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Ce-141	-0.00342 ± 0.0113	0.0286	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Ce-144	-0.0450 ± 0.0482	0.112	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Cs-134	0.000344 ± 0.0104	0.0296	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Cs-137	-0.0106 ± 0.0132	0.0321	pCi/m3
N11-0317-001	Eureka	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0317-001	Eureka	DOE RP 710	Gross Beta	±		pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	I-132	0.0194 ± 0.0151	0.0600	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Ru-103	-0.00459 ± 0.0109	0.0283	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Ru-106	0.125 ± 0.0668	0.292	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Te-132	0.00108 ± 0.0120	0.0370	pCi/m3
N11-0317-001	Eureka	HASL Ga-01-R	Zr-95	0.00587 ± 0.0193	0.0450	pCi/m3
N11-0317-002	Eureka	HASL Ga-01-R	Iodine-131	0.329 ± 0.0266	0.0638	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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850 Marina Bay Parkway, Richmond, CA 94804



EDMUND G. BROWN JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0316

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: 03/24/2011 09:55	Date/Time Received: 03/25/2011 09:34	
Site Name: Eureka / Air	Source Name: _____		
R Number: R 93996	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>
16362.4	03/22/2011 10:00	16718.7	03/24/2011 09:55	356.3

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0316-001	Eureka	HASL Ga-01-R	Ba-140	0.0228 ± 0.0266	0.0930	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Ce-141	0.00906 ± 0.0100	0.0334	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Ce-144	0.0115 ± 0.0444	0.137	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Cs-134	0.00777 ± 0.0138	0.0403	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Cs-137	-0.00713 ± 0.0165	0.0413	pCi/m3
N11-0316-001	Eureka	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0316-001	Eureka	DOE RP 710	Gross Beta	±		pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	I-131	0.0925 ± 0.00935	0.0225	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	I-132	-0.0301 ± 0.0227	0.0448	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Ru-103	0.000130 ± 0.00961	0.0256	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Ru-106	-0.121 ± 0.116	0.236	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Te-132	0.00938 ± 0.00882	0.0288	pCi/m3
N11-0316-001	Eureka	HASL Ga-01-R	Zr-95	-0.00108 ± 0.0191	0.0532	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. N11-0316

N11-0316-002

Eureka

HASL Ga-01-R

Iodine-131

0.877 ± 0.0412

0.0616

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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EDMUND G. BROWN JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0315

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: 03/22/2011 15:54	Date/Time Received: 03/24/2011 15:18	
Site Name: Humboldt Bay / Air	Source Name: _____		
R Number: R 90462	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>
74439.6	03/20/2011 15:23	74809.7	03/22/2011 15:54	370.1

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Ba-140	-0.0993 ± 0.0634	0.122	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Ce-141	-0.00240 ± 0.0154	0.0367	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Ce-144	-0.0799 ± 0.0689	0.135	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Cs-134	-0.0164 ± 0.0178	0.0445	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Cs-137	-0.00309 ± 0.0160	0.0459	pCi/m3
N11-0315-001	Humboldt Bay NPP	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0315-001	Humboldt Bay NPP	DOE RP 710	Gross Beta	±		pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	I-132	-0.0320 ± 0.0273	0.0554	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Ru-103	0.0123 ± 0.00674	0.0306	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Ru-106	0.0229 ± 0.0797	0.244	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Te-132	0.00615 ± 0.00780	0.0302	pCi/m3
N11-0315-001	Humboldt Bay NPP	HASL Ga-01-R	Zr-95	-0.0121 ± 0.0299	0.0619	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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850 Marina Bay Parkway, Richmond, CA 94804



EDMUND G. BROWN, JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0304

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: 03/22/2011 14:00

Date/Time Received: 03/22/2011 14:53

Site Name: Richmond / Air

Source Name:

R Number: R 91570

Sample Type: Air Filter

Air Filter Information

Start Volume	Start Date/Time	End Volume (M) ³	End Date/Time	Net Air Volume (M) ³
4183.7	03/20/2011 10:30	4547.5	03/22/2011 14:00	363.8

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0304-001	Richmond	HASL Ga-01-R	Ba-140	-0.0238 ± 0.0447	0.118	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Ce-141	0.0120 ± 0.0131	0.0377	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Ce-144	-0.0129 ± 0.0636	0.146	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Cs-134	-0.0901 ± 0.0292	0.0536	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Cs-137	0.0235 ± 0.0120	0.0515	pCi/m ³
N11-0304-001	Richmond	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0304-001	Richmond	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	I-131	0.0902 ± 0.0127	0.0439	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	I-132	0.0236 ± 0.00715	0.0417	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Ru-103	-0.00137 ± 0.00800	0.0247	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Ru-106	-0.0354 ± 0.0999	0.273	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Te-132	0.00849 ± 0.00548	0.0228	pCi/m ³
N11-0304-001	Richmond	HASL Ga-01-R	Zr-95	0.0437 ± 0.0215	0.0536	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.



Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, Richmond, CA 94804

PRELIMINARY Analysis Results Report for Task ID. N11-0311

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: 03/24/2011 13:00	Date/Time Received: 03/24/2011 13:36	
Site Name: Richmond / Air	Source Name: _____		
R Number: R 91571	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>
4547.5	03/22/2011 14:00	4870.0	03/24/2011 13:00	322.5

<u>Sample ID</u>	<u>Sampling Point</u>	<u>Method</u>	<u>Parameter</u>	<u>Result ± CE</u>	<u>MDA₉₅</u>	<u>Units</u>
N11-0311-001	Richmond	HASL Ga-01-R	Ba-140	-0.0447 ± 0.0554	0.138	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Ce-141	0.00527 ± 0.0142	0.0381	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Ce-144	-0.00708 ± 0.0667	0.174	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Cs-134	0 ± 0.0129	0.0649	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Cs-137	0.0494 ± 0.0165	0.0671	pCi/m ³
N11-0311-001	Richmond	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0311-001	Richmond	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	I-131	0.211 ± 0.0148	0.0339	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	I-132	0.0438 ± 0.0142	0.0585	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Ru-103	0.00398 ± 0.0113	0.0359	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Ru-106	-0.0633 ± 0.152	0.412	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Te-132	0.0220 ± 0.0102	0.0361	pCi/m ³
N11-0311-001	Richmond	HASL Ga-01-R	Zr-95	0.00313 ± 0.0249	0.0612	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.

PRELIMINARY Analysis Results Report for Task ID. N11-0311

N11-0311-002

Richmond

HASL Ga-01-R

Iodine-131

0.900 ± 0.0395

0.0576

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

850 Marina Bay Parkway, Richmond, CA 94804



EDMUND G. BROWN JR.
Governor

PRELIMINARY Analysis Results Report for Task ID. N11-0306

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: 03/23/2011 09:57	Date/Time Received: 03/23/2011 13:08	
Site Name: Livermore / Air	Source Name:		
R Number: R 91047	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>
31809.4	03/21/2011 10:09	32182.1	03/23/2011 09:57	372.7

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0306-001	Livermore	HASL Ga-01-R	Ba-140	0.0350 ± 0.0412	0.126	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Ce-141	0.00959 ± 0.0131	0.0402	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Ce-144	0.0731 ± 0.0564	0.180	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Cs-134	-0.00472 ± 0.0114	0.0341	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Cs-137	-0.0345 ± 0.0171	0.0344	pCi/m3
N11-0306-001	Livermore	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0306-001	Livermore	DOE RP 710	Gross Beta	±		pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	I-131	0.0829 ± 0.0106	0.0370	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	I-132	0.0164 ± 0.00792	0.0344	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Ru-103	-0.0380 ± 0.0165	0.0261	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Ru-106	0.161 ± 0.0841	0.348	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Te-132	0.0225 ± 0.00732	0.0284	pCi/m3
N11-0306-001	Livermore	HASL Ga-01-R	Zr-95	-0.00338 ± 0.0192	0.0579	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. N11-0306

N11-0306-002

Livermore

HASL Ga-01-R

Iodine-131

0.242 ± 0.0198

0.0472

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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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. N11-0308

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: 03/22/2011 08:46	Date/Time Received: 03/23/2011 13:19	
Site Name: Diablo Canyon / Air	Source Name: _____		
R Number: R 90432	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>
25042.1	03/20/2011 12:27	25365.5	03/22/2011 08:46	323.4

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Ba-140	0.00696 ± 0.0445	0.137	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-141	-0.0157 ± 0.0197	0.0424	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-144	-0.0783 ± 0.0771	0.165	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-134	-0.0249 ± 0.0192	0.0437	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-137	-0.0127 ± 0.020	0.0477	pCi/m3
N11-0308-001	Diablo Canyon NPP	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0308-001	Diablo Canyon NPP	DOE RP 710	Gross Beta	±		pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	I-131	0.104 ± 0.0143	0.0466	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	I-132	0.00765 ± 0.0194	0.0618	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-103	0.000204 ± 0.0119	0.0345	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-106	0.0981 ± 0.103	0.390	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Te-132	0.0256 ± 0.0108	0.0453	pCi/m3
N11-0308-001	Diablo Canyon NPP	HASL Ga-01-R	Zr-95	-0.0109 ± 0.0307	0.0611	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. N11-0308

N11-0308-002

Diablo Canyon NPP

HASL Ga-01-R

Iodine-131

0.747 ± 0.0397

0.0715

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. N11-0319

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: 03/24/2011 09:33	Date/Time Received: 03/25/2011 09:56	
Site Name: Diablo Canyon / Air	Source Name: _____		
R Number: R 90434	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>
25365.5	03/22/2011 08:51	25718.9	03/24/2011 09:33	353.4

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Ba-140	0.0222 ± 0.0369	0.115	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-141	0.00948 ± 0.0128	0.0391	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Ce-144	-0.0528 ± 0.0580	0.148	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-134	0.00926 ± 0.0105	0.0377	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Cs-137	0.0127 ± 0.0126	0.0425	pCi/m3
N11-0319-001	Diablo Canyon NPP	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0319-001	Diablo Canyon NPP	DOE RP 710	Gross Beta	±		pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	I-131	0.0646 ± 0.00988	0.0347	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	I-132	-0.00498 ± 0.0162	0.0462	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-103	0.00393 ± 0.0105	0.0307	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Ru-106	-0.0596 ± 0.113	0.320	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Te-132	0.0285 ± 0.00749	0.0326	pCi/m3
N11-0319-001	Diablo Canyon NPP	HASL Ga-01-R	Zr-95	-0.0317 ± 0.0307	0.0653	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. N11-0319

N11-0319-002

Diablo Canyon NPP

HASL Ga-01-R

Iodine-131

0.368 ± 0.0257

0.0524

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

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. N11-0307

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: 03/22/2011 08:18	Date/Time Received: 03/23/2011 13:14
Site Name: San Luis Obispo / Air	Source Name: _____	
R Number: R 90431	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>
63978.4	03/20/2011 11:58	64306.9	03/22/2011 08:18	328.5

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Ba-140	0.0465 ± 0.0369	0.136	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Ce-141	-0.00809 ± 0.0132	0.0321	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Ce-144	-0.0129 ± 0.0596	0.151	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Cs-134	0.00100 ± 0.0131	0.0388	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Cs-137	0.0152 ± 0.0174	0.0568	pCi/m3
N11-0307-001	San Luis Obispo	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0307-001	San Luis Obispo	DOE RP 710	Gross Beta	±		pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	I-131	0.135 ± 0.0124	0.0312	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	I-132	0.0427 ± 0.0149	0.0660	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Ru-103	0.00480 ± 0.0121	0.037	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Ru-106	-0.292 ± 0.187	0.331	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Te-132	0.0193 ± 0.0116	0.0404	pCi/m3
N11-0307-001	San Luis Obispo	HASL Ga-01-R	Zr-95	0.0195 ± 0.0270	0.0542	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. N11-0307

N11-0307-002

San Luis Obispo

HASL Ga-01-R

Iodine-131

0.721 ± 0.0378

0.0589

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.



Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, Richmond, CA 94804

PRELIMINARY Analysis Results Report for Task ID. N11-0318

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: 03/24/2011 10:23	Date/Time Received: 03/25/2011 09:48	
Site Name: San Luis Obispo / Air	Source Name: _____		
R Number: R 90433	Sample Type: Air Filter		

Air Filter Information				
Start Volume	Start Date/Time	End Volume (M) ³	End Date/Time	Net Air Volume (M) ³
64306.9	03/22/2011 08:22	64680.1	03/24/2011 10:23	373.2

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Ba-140	-0.00654 ± 0.0471	0.128	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Ce-141	-0.000183 ± 0.0139	0.0343	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Ce-144	-0.00837 ± 0.0491	0.117	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Cs-134	-0.00585 ± 0.0125	0.0330	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Cs-137	-0.0130 ± 0.0119	0.0220	pCi/m ³
N11-0318-001	San Luis Obispo	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0318-001	San Luis Obispo	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	I-131	0.0654 ± 0.0131	0.0511	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	I-132	0.0198 ± 0.0112	0.0476	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Ru-103	-0.0197 ± 0.0126	0.0213	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Ru-106	0.0510 ± 0.0918	0.309	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Te-132	0.00535 ± 0.00740	0.0274	pCi/m ³
N11-0318-001	San Luis Obispo	HASL Ga-01-R	Zr-95	0.00593 ± 0.0200	0.0632	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.

PRELIMINARY Analysis Results Report for Task ID. N11-0318

N11-0318-002

San Luis Obispo

HASL Ga-01-R

Iodine-131

0.387 ± 0.0257

0.0517

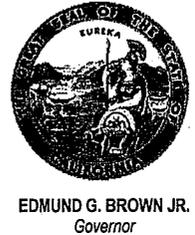
pCi/m3

-
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.



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



PRELIMINARY Analysis Results Report for Task ID. N11-0320

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: 03/24/2011 15:15	Date/Time Received: 03/25/2011 10:03	
Site Name: San Onofre / Air	Source Name: _____		
R Number: R 88062	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>
6542.25	03/22/2011 17:15	6848.9	03/24/2011 15:15	306.65

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0320-001	San Onofre	HASL Ga-01-R	Ba-140	-0.0266 ± 0.0412	0.0867	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Ce-141	0.0119 ± 0.0120	0.0361	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Ce-144	-0.0298 ± 0.0585	0.144	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Cs-134	-0.00231 ± 0.0140	0.0415	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Cs-137	0.0173 ± 0.00822	0.0405	pCi/m3
N11-0320-001	San Onofre	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0320-001	San Onofre	DOE RP 710	Gross Beta	±		pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	I-131	0.0896 ± 0.0105	0.0293	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	I-132	0.0125 ± 0.0109	0.0426	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Ru-103	-0.00488 ± 0.0138	0.0337	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Ru-106	0.130 ± 0.0743	0.329	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Te-132	0.00486 ± 0.0102	0.0327	pCi/m3
N11-0320-001	San Onofre	HASL Ga-01-R	Zr-95	0.0527 ± 0.0125	0.0693	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. N11-0320

N11-0320-002

San Onofre

HASL Ga-01-R

Iodine-131

0.270 ± 0.0242

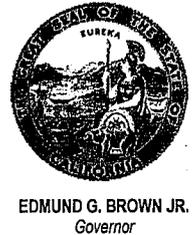
0.0614

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.



Drinking Water and Radiation Laboratory Branch
 850 Marina Bay Parkway, Richmond, CA 94804



PRELIMINARY Analysis Results Report for Task ID. N11-0310

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: 03/23/2011 08:45	Date/Time Received: 03/24/2011 09:03	
Site Name: Los Angeles / Air	Source Name: _____		
R Number: R 93617	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>
85863.4	03/21/2011 09:30	86190.1	03/23/2011 08:45	326.7

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0310-001	Los Angeles	HASL Ga-01-R	Ba-140	-0.0259 ± 0.0427	0.109	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Ce-141	-0.0218 ± 0.0157	0.0324	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Ce-144	0.0451 ± 0.0563	0.133	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Cs-134	0.0222 ± 0.0114	0.0436	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Cs-137	0.0182 ± 0.00731	0.0390	pCi/m3
N11-0310-001	Los Angeles	DOE RP 710	Gross Alpha	±		pCi/m3
N11-0310-001	Los Angeles	DOE RP 710	Gross Beta	±		pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	I-131	0.0732 ± 0.0107	0.0367	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	I-132	0.0159 ± 0.0116	0.0460	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Ru-103	-0.0131 ± 0.0139	0.0340	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Ru-106	0.107 ± 0.0810	0.325	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Te-132	0.00447 ± 0.00918	0.0293	pCi/m3
N11-0310-001	Los Angeles	HASL Ga-01-R	Zr-95	-0.0303 ± 0.0287	0.0519	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. N11-0310

N11-0310-002

Los Angeles

HASL Ga-01-R

Iodine-131

0.407 ± 0.0264

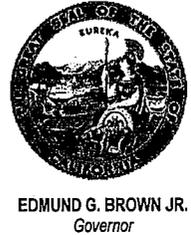
0.0549

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.



Drinking Water and Radiation Laboratory Branch
850 Marina Bay Parkway, Richmond, CA 94804



PRELIMINARY Analysis Results Report for Task ID. N11-0321

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: 03/23/2011 13:30	Date/Time Received: 03/25/2011 10:43	
Site Name: San Diego / Air	Source Name: _____		
R Number: R 90610	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>	
79316.0	03/21/2011 09:03	79675.2	03/23/2011 13:30	359.2	

Sample ID	Sampling Point	Method	Parameter	Result ± CE	MDA ₉₅	Units
N11-0321-001	San Diego	HASL Ga-01-R	Ba-140	-0.000480 ± 0.0403	0.108	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Ce-141	0.0152 ± 0.0127	0.0409	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Ce-144	-0.00161 ± 0.0527	0.149	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Cs-134	0.0110 ± 0.00891	0.0332	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Cs-137	-0.00336 ± 0.0111	0.0330	pCi/m ³
N11-0321-001	San Diego	DOE RP 710	Gross Alpha	±		pCi/m ³
N11-0321-001	San Diego	DOE RP 710	Gross Beta	±		pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	I-131	0.0908 ± 0.0114	0.0371	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	I-132	0.0104 ± 0.0135	0.0485	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Ru-103	-0.0220 ± 0.0145	0.0254	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Ru-106	0.186 ± 0.0871	0.362	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Te-132	0.0301 ± 0.00926	0.0381	pCi/m ³
N11-0321-001	San Diego	HASL Ga-01-R	Zr-95	-0.00396 ± 0.0271	0.0587	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.

PRELIMINARY Analysis Results Report for Task ID. N11-0321

N11-0321-002

San Diego

HASL Ga-01-R

Iodine-131

0.469 ± 0.0295

0.0540

pCi/m3

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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.