

New Mexico Environment Department DOE Oversight Bureau, Sandia Oversight Office

Fourth Calendar Quarter 2012

AIRNET SAMPLING PROGRAM

The result in the "Activity" column is shaded blue when it is above the detection limit (MDA) established for the sample batch. Where both Gamma Spec. and Alpha-Spec. methods are used for the same analyte the Alpha-Spec result should be used. The Upper Tolerance Limit using 3 standard deviations (UTL 3sd) for long term data are shown for all Alpha-Spec results and quantifiable detections for other data. The entries in the column headed "40CFR61" are reference standards from the Code of Federal Regulations, Part 61 – National Emission Standards for Hazardous Air Pollutants. Activity values are not blank corrected and will be higher than blank corrected values. Lab Qualifiers: U-Not Detected. J-Value is estimated. NQ-Data not quantifiable. LT-Result is less than requested Minimum Detectable Activity (MDA) and greater than sample specific MDA.

NMED DOE Oversight Bureau Data Release		RADIOLOGICAL PARTICULATES IN AIR at SNL					Avg. Air Volume		
Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualifier	Sample ID	M <sup>3</sup>	Analytical Method	
<b>KAIR-01 Four Hills</b>									
<b>Ac-228</b>									
1/4/2013 11:22:00 AM	6.62E+02 ± 2.00E+03	aCi/m3	3.36E+03	3.70E+06	U	01Q412	9510.65	Gamma Spec.	
<b>Am-241</b>									
1/4/2013 11:22:00 AM	1.26E+00 ± 2.73E+00	aCi/m3	5.05E+00	9.12E+00	1.90E+03	U	01Q412	9510.65	Alpha-Spec
<b>Be-7</b>									
1/4/2013 11:22:00 AM	9.78E+04 ± 1.26E+04	aCi/m3	4.10E+03	2.30E+07		01Q412	9510.65	Gamma Spec.	
<b>Bi-212</b>									
1/4/2013 11:22:00 AM	2.42E+03 ± 3.26E+03	aCi/m3	5.26E+03	5.60E+07	U	01Q412	9510.65	Gamma Spec.	
<b>Bi-214</b>									
1/4/2013 11:22:00 AM	-1.05E+00 ± 1.37E+03	aCi/m3	2.31E+03	1.40E+08	U,J	01Q412	9510.65	Gamma Spec.	
<b>Co-60</b>									
1/4/2013 11:22:00 AM	0.00E+00 ± 2.31E+02	aCi/m3	4.00E+02	1.70E+04	U	01Q412	9510.65	Gamma Spec.	
<b>Cs-134</b>									
1/4/2013 11:22:00 AM	-9.88E+01 ± 2.52E+02	aCi/m3	4.31E+02	2.70E+04	U	01Q412	9510.65	Gamma Spec.	
<b>Cs-137</b>									
1/4/2013 11:22:00 AM	-7.57E+01 ± 2.52E+02	aCi/m3	4.21E+02	1.90E+04	U	01Q412	9510.65	Gamma Spec.	
<b>GROSSA</b>									
1/4/2013 11:22:00 AM	3.05E+03 ± 5.05E+02	aCi/m3	8.62E+01	5.02E+03		01Q412	9510.65	Gas Proportional Cou	
<b>GROSSB</b>									
1/4/2013 11:22:00 AM	2.73E+04 ± 4.31E+03	aCi/m3	1.37E+02	3.73E+04		01Q412	9510.65	Gas Proportional Cou	
<b>I-131</b>									
1/4/2013 11:22:00 AM	1.37E+03 ± 2.52E+03	aCi/m3	4.21E+03	2.10E+05	U	01Q412	9510.65	Gamma Spec.	
<b>K-40</b>									
1/4/2013 11:22:00 AM	5.47E+02 ± 7.68E+03	aCi/m3	1.26E+04	2.70E+04	U	01Q412	9510.65	Gamma Spec.	
<b>Na-22</b>									
1/4/2013 11:22:00 AM	-4.73E+01 ± 2.31E+02	aCi/m3	4.00E+02	2.60E+04	U	01Q412	9510.65	Gamma Spec.	
<b>Pa-234M</b>									

Blue shaded are values above detection limit. A Lab Qualifier of "U" also indicates "Not Detected."

UTL 3sd is shaded brown where result exceeds UTL 3sd

NMED DOE Oversight Bureau Data Release

RADIOLOGICAL PARTICULATES IN AIR at SNL

Avg. Air Volume

	Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualfier	Sample ID	M <sup>3</sup>	Analytical Method
1/4/2013 11:22:00 AM	<b>3.68E+04 ± 3.89E+04</b>	aCi/m3	6.31E+04			U	01Q412	9510.65	Gamma Spec.
	<b>Pb-212</b>								
1/4/2013 11:22:00 AM	<b>-2.10E+01 ± 7.78E+02</b>	aCi/m3	1.26E+03		6.30E+06	U	01Q412	9510.65	Gamma Spec.
	<b>Pb-214</b>								
1/4/2013 11:22:00 AM	<b>-1.05E+02 ± 1.16E+03</b>	aCi/m3	2.00E+03		1.20E+08	U,J	01Q412	9510.65	Gamma Spec.
	<b>Pu-238</b>								
1/4/2013 11:22:00 AM	<b>-1.05E+00 ± 5.57E+00</b>	aCi/m3	9.99E+00	6.81E+00	2.10E+03	U	01Q412	9510.65	Alpha-Spec
	<b>Pu-239,240</b>								
1/4/2013 11:22:00 AM	<b>7.47E+00 ± 6.83E+00</b>	aCi/m3	4.10E+00	<b>7.40E+00</b>	2.00E+03	LT	01Q412	9510.65	Alpha-Spec
	<b>Th-234</b>								
1/4/2013 11:22:00 AM	<b>4.31E+03 ± 1.26E+04</b>	aCi/m3	2.00E+04		2.20E+06	U	01Q412	9510.65	Gamma Spec.
	<b>Tl-208</b>								
1/4/2013 11:22:00 AM	<b>1.16E+01 ± 6.10E+02</b>	aCi/m3	1.02E+03			U	01Q412	9510.65	Gamma Spec.
	<b>U-234</b>								
1/4/2013 11:22:00 AM	<b>1.26E+01 ± 7.57E+00</b>	aCi/m3	9.25E+00	1.96E+02	7.70E+03	LT	01Q412	9510.65	Alpha-Spec
	<b>U-235</b>								
1/4/2013 11:22:00 AM	<b>2.00E+00 ± 3.57E+00</b>	aCi/m3	2.63E+00	1.25E+01	7.10E+03	U	01Q412	9510.65	Alpha-Spec
	<b>U-238</b>								
1/4/2013 11:22:00 AM	<b>1.79E+01 ± 8.62E+00</b>	aCi/m3	6.31E+00	2.19E+02	8.30E+03	LT	01Q412	9510.65	Alpha-Spec
	<b>KAIR-02 USGS</b>								
	<b>Ac-228</b>								
1/4/2013 11:46:00 AM	<b>1.76E+03 ± 1.14E+03</b>	aCi/m3	1.76E+03		3.70E+06	NQ	02Q412	9679.99	Gamma Spec.
	<b>Am-241</b>								
1/4/2013 11:46:00 AM	<b>7.75E-01 ± 2.69E+00</b>	aCi/m3	5.27E+00	9.12E+00	1.90E+03	U	02Q412	9679.99	Alpha-Spec
	<b>Be-7</b>								
1/4/2013 11:46:00 AM	<b>9.71E+04 ± 1.24E+04</b>	aCi/m3	5.06E+03		2.30E+07		02Q412	9679.99	Gamma Spec.
	<b>Bi-212</b>								
1/4/2013 11:46:00 AM	<b>6.61E+03 ± 4.03E+03</b>	aCi/m3	6.30E+03		5.60E+07	NQ	02Q412	9679.99	Gamma Spec.
	<b>Bi-214</b>								
1/4/2013 11:46:00 AM	<b>1.34E+03 ± 6.20E+02</b>	aCi/m3	9.40E+02		1.40E+08	J,NQ	02Q412	9679.99	Gamma Spec.
	<b>Co-60</b>								
1/4/2013 11:46:00 AM	<b>-1.86E+02 ± 3.10E+02</b>	aCi/m3	5.48E+02		1.70E+04	U	02Q412	9679.99	Gamma Spec.
	<b>Cs-134</b>								
1/4/2013 11:46:00 AM	<b>-3.31E+02 ± 2.89E+02</b>	aCi/m3	4.96E+02		2.70E+04	U	02Q412	9679.99	Gamma Spec.
	<b>Cs-137</b>								

Blue shaded are values above detection limit. A Lab Qualifier of "U" also indicates "Not Detected."

UTL 3sd is shaded brown where result exceeds UTL 3sd

NMED DOE Oversight Bureau Data Release

RADIOLOGICAL PARTICULATES IN AIR at SNL

Avg. Air Volume

	Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualfier	Sample ID	M <sup>3</sup>	Analytical Method
1/4/2013 11:46:00 AM	-7.54E+01 ± 2.69E+02	aCi/m3	4.55E+02		1.90E+04	U	02Q412	9679.99	Gamma Spec.
<b>GROSSA</b>									
1/4/2013 11:46:00 AM	2.27E+03 ± 3.72E+02	aCi/m3	7.33E+01	5.02E+03			02Q412	9679.99	Gas Proportional Cou
<b>GROSSB</b>									
1/4/2013 11:46:00 AM	2.58E+04 ± 4.13E+03	aCi/m3	1.34E+02	3.73E+04			02Q412	9679.99	Gas Proportional Cou
<b>I-131</b>									
1/4/2013 11:46:00 AM	-4.34E+02 ± 2.27E+03	aCi/m3	3.93E+03		2.10E+05	U	02Q412	9679.99	Gamma Spec.
<b>K-40</b>									
1/4/2013 11:46:00 AM	6.92E+02 ± 8.26E+03	aCi/m3	1.34E+04		2.70E+04	U	02Q412	9679.99	Gamma Spec.
<b>Na-22</b>									
1/4/2013 11:46:00 AM	-1.34E+02 ± 3.10E+02	aCi/m3	5.37E+02		2.60E+04	U	02Q412	9679.99	Gamma Spec.
<b>Pa-234M</b>									
1/4/2013 11:46:00 AM	3.10E+03 ± 4.65E+04	aCi/m3	7.85E+04			U	02Q412	9679.99	Gamma Spec.
<b>Pb-212</b>									
1/4/2013 11:46:00 AM	3.62E+01 ± 7.64E+02	aCi/m3	1.24E+03		6.30E+06	U	02Q412	9679.99	Gamma Spec.
<b>Pb-214</b>									
1/4/2013 11:46:00 AM	9.92E+02 ± 5.17E+02	aCi/m3	8.06E+02		1.20E+08	J,NQ	02Q412	9679.99	Gamma Spec.
<b>Pu-238</b>									
1/4/2013 11:46:00 AM	1.96E-01 ± 2.69E+00	aCi/m3	4.75E+00	6.81E+00	2.10E+03	U	02Q412	9679.99	Alpha-Spec
<b>Pu-239,240</b>									
1/4/2013 11:46:00 AM	1.14E+00 ± 2.69E+00	aCi/m3	3.93E+00	7.40E+00	2.00E+03	U	02Q412	9679.99	Alpha-Spec
<b>Th-234</b>									
1/4/2013 11:46:00 AM	2.89E+03 ± 7.64E+03	aCi/m3	1.24E+04		2.20E+06	U	02Q412	9679.99	Gamma Spec.
<b>Tl-208</b>									
1/4/2013 11:46:00 AM	1.45E+02 ± 5.17E+02	aCi/m3	8.88E+02			U	02Q412	9679.99	Gamma Spec.
<b>U-234</b>									
1/4/2013 11:46:00 AM	8.99E+00 ± 5.48E+00	aCi/m3	6.20E+00	1.96E+02	7.70E+03	LT	02Q412	9679.99	Alpha-Spec
<b>U-235</b>									
1/4/2013 11:46:00 AM	2.89E+00 ± 3.41E+00	aCi/m3	5.48E+00	1.25E+01	7.10E+03	U	02Q412	9679.99	Alpha-Spec
<b>U-238</b>									
1/4/2013 11:46:00 AM	1.14E+01 ± 6.10E+00	aCi/m3	6.61E+00	2.19E+02	8.30E+03	LT	02Q412	9679.99	Alpha-Spec
<b>KAIR-03 Southwest Base</b>									
<b>Ac-228</b>									
1/4/2013 12:04:00 PM	2.46E+03 ± 1.23E+03	aCi/m3	2.00E+03		3.70E+06	NQ	03Q412	6503.05	Gamma Spec.
<b>Am-241</b>									

Blue shaded are values above detection limit. A Lab Qualifier of "U" also indicates "Not Detected."

UTL 3sd is shaded brown where result exceeds UTL 3sd

NMED DOE Oversight Bureau Data Release		RADIOLOGICAL PARTICULATES IN AIR at SNL							Avg. Air Volume	
Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualfier	Sample ID	M <sup>3</sup>	Analytical Method		
1/4/2013 12:04:00 PM <b>Be-7</b>	1.54E+00 ± 4.00E+00	aCi/m3	7.69E+00	9.12E+00	1.90E+03	U	03Q412	6503.05	Alpha-Spec	
1/4/2013 12:04:00 PM <b>Bi-212</b>	1.38E+05 ± 1.69E+04	aCi/m3	5.23E+03		2.30E+07		03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Bi-214</b>	4.77E+03 ± 4.92E+03	aCi/m3	8.15E+03		5.60E+07	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Bi-214</b>	4.77E+03 ± 4.92E+03	aCi/m3	8.15E+03		5.60E+07	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Co-60</b>	-3.54E+02 ± 1.85E+03	aCi/m3	3.23E+03		1.40E+08	U,J	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Cs-134</b>	-2.61E+02 ± 3.84E+02	aCi/m3	6.92E+02		1.70E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Cs-137</b>	1.28E+02 ± 3.38E+02	aCi/m3	5.69E+02		2.70E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>GROSSA</b>	-4.92E+02 ± 3.38E+02	aCi/m3	5.84E+02		1.90E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>GROSSB</b>	-4.92E+02 ± 3.38E+02	aCi/m3	5.84E+02		1.90E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>I-131</b>	4.46E+03 ± 7.53E+02	aCi/m3	1.14E+02	5.02E+03			03Q412	6503.05	Gas Proportional Cou	
1/4/2013 12:04:00 PM <b>K-40</b>	4.15E+04 ± 6.61E+03	aCi/m3	2.00E+02	3.73E+04			03Q412	6503.05	Gas Proportional Cou	
1/4/2013 12:04:00 PM <b>Na-22</b>	-3.23E+03 ± 4.15E+03	aCi/m3	7.07E+03		2.10E+05	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Pa-234M</b>	-7.23E+02 ± 1.01E+04	aCi/m3	1.69E+04		2.70E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Pb-212</b>	-3.38E+02 ± 3.69E+02	aCi/m3	6.61E+02		2.60E+04	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Pb-214</b>	4.15E+04 ± 6.00E+04	aCi/m3	9.69E+04			U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Pu-238</b>	1.37E+02 ± 9.53E+02	aCi/m3	1.54E+03		6.30E+06	U	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Pu-239,240</b>	1.69E+02 ± 1.35E+03	aCi/m3	2.31E+03		1.20E+08	U,J	03Q412	6503.05	Gamma Spec.	
1/4/2013 12:04:00 PM <b>Th-234</b>	2.46E+00 ± 4.46E+00	aCi/m3	3.23E+00	6.81E+00	2.10E+03	U	03Q412	6503.05	Alpha-Spec	
1/4/2013 12:04:00 PM <b>Th-234</b>	0.00E+00 ± 4.46E+00	aCi/m3	3.23E+00	7.40E+00	2.00E+03	U	03Q412	6503.05	Alpha-Spec	

Blue shaded are values above detection limit. A Lab Qualifier of "U" also indicates "Not Detected." UTL 3sd is shaded brown where result exceeds UTL 3sd

NMED DOE Oversight Bureau Data Release

RADIOLOGICAL PARTICULATES IN AIR at SNL

Avg. Air Volume

	Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualfier	Sample ID	M <sup>3</sup>	Analytical Method
1/4/2013 12:04:00 PM	-4.61E+02 ± 6.77E+03	aCi/m3	1.12E+04		2.20E+06	U	03Q412	6503.05	Gamma Spec.
1/4/2013 12:04:00 PM	-4.61E+02 ± 6.77E+03	aCi/m3	1.12E+04		2.20E+06	U	03Q412	6503.05	Gamma Spec.
<b>TI-208</b>									
1/4/2013 12:04:00 PM	1.26E+02 ± 7.23E+02	aCi/m3	1.21E+03			U	03Q412	6503.05	Gamma Spec.
<b>U-234</b>									
1/4/2013 12:04:00 PM	2.31E+01 ± 1.15E+01	aCi/m3	9.38E+00	1.96E+02	7.70E+03	LT	03Q412	6503.05	Alpha-Spec
<b>U-235</b>									
1/4/2013 12:04:00 PM	5.23E+00 ± 6.30E+00	aCi/m3	1.01E+01	1.25E+01	7.10E+03	U	03Q412	6503.05	Alpha-Spec
<b>U-238</b>									
1/4/2013 12:04:00 PM	3.54E+01 ± 1.43E+01	aCi/m3	9.53E+00	2.19E+02	8.30E+03		03Q412	6503.05	Alpha-Spec
<b>KAIR-04 Mixed Waste Landfill</b>									
<b>Ac-228</b>									
1/4/2013 12:34:00 PM	1.60E+03 ± 9.62E+02	aCi/m3	1.50E+03		3.70E+06	NQ	04Q412	9978.43	Gamma Spec.
<b>Am-241</b>									
1/4/2013 12:34:00 PM	1.10E+00 ± 2.61E+00	aCi/m3	5.01E+00	9.12E+00	1.90E+03	U	04Q412	9978.43	Alpha-Spec
<b>Be-7</b>									
1/4/2013 12:34:00 PM	9.52E+04 ± 1.20E+04	aCi/m3	3.81E+03		2.30E+07		04Q412	9978.43	Gamma Spec.
<b>Bi-212</b>									
1/4/2013 12:34:00 PM	3.61E+03 ± 3.31E+03	aCi/m3	5.31E+03		5.60E+07	U	04Q412	9978.43	Gamma Spec.
<b>Bi-214</b>									
1/4/2013 12:34:00 PM	5.81E+02 ± 1.00E+03	aCi/m3	2.10E+03		1.40E+08	U,J	04Q412	9978.43	Gamma Spec.
<b>Co-60</b>									
1/4/2013 12:34:00 PM	6.41E-01 ± 2.61E+02	aCi/m3	4.61E+02		1.70E+04	U	04Q412	9978.43	Gamma Spec.
<b>Cs-134</b>									
1/4/2013 12:34:00 PM	-1.40E+02 ± 2.61E+02	aCi/m3	4.51E+02		2.70E+04	U	04Q412	9978.43	Gamma Spec.
<b>Cs-137</b>									
1/4/2013 12:34:00 PM	-1.90E+02 ± 2.51E+02	aCi/m3	4.41E+02		1.90E+04	U	04Q412	9978.43	Gamma Spec.
<b>GROSSA</b>									
1/4/2013 12:34:00 PM	3.01E+03 ± 5.01E+02	aCi/m3	7.72E+01	5.02E+03			04Q412	9978.43	Gas Proportional Cou
<b>GROSSB</b>									
1/4/2013 12:34:00 PM	2.71E+04 ± 4.31E+03	aCi/m3	1.30E+02	3.73E+04			04Q412	9978.43	Gas Proportional Cou
<b>I-131</b>									
1/4/2013 12:34:00 PM	1.20E+03 ± 2.41E+03	aCi/m3	4.01E+03		2.10E+05	U	04Q412	9978.43	Gamma Spec.
<b>K-40</b>									
1/4/2013 12:34:00 PM	-1.20E+03 ± 6.51E+03	aCi/m3	1.10E+04		2.70E+04	U	04Q412	9978.43	Gamma Spec.

Blue shaded are values above detection limit. A Lab Qualifier of "U" also indicates "Not Detected."

UTL 3sd is shaded brown where result exceeds UTL 3sd

	Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualfier	Sample ID	M <sup>3</sup>	Analytical Method
<b>Na-22</b>									
1/4/2013 12:34:00 PM	4.71E+01 ± 2.81E+02	aCi/m3	4.81E+02		2.60E+04	U	04Q412	9978.43	Gamma Spec.
<b>Pa-234M</b>									
1/4/2013 12:34:00 PM	1.20E+04 ± 4.11E+04	aCi/m3	7.02E+04			U	04Q412	9978.43	Gamma Spec.
<b>Pb-212</b>									
1/4/2013 12:34:00 PM	-1.10E+02 ± 7.12E+02	aCi/m3	1.20E+03		6.30E+06	U	04Q412	9978.43	Gamma Spec.
<b>Pb-214</b>									
1/4/2013 12:34:00 PM	-8.02E+02 ± 9.62E+02	aCi/m3	1.60E+03		1.20E+08	U,J	04Q412	9978.43	Gamma Spec.
<b>Pu-238</b>									
1/4/2013 12:34:00 PM	2.00E+00 ± 2.51E+00	aCi/m3	1.80E+00	6.81E+00	2.10E+03	LT	04Q412	9978.43	Alpha-Spec
<b>Pu-239,240</b>									
1/4/2013 12:34:00 PM	4.71E-01 ± 2.51E+00	aCi/m3	3.71E+00	7.40E+00	2.00E+03	U	04Q412	9978.43	Alpha-Spec
<b>Th-234</b>									
1/4/2013 12:34:00 PM	2.61E+03 ± 7.12E+03	aCi/m3	1.20E+04		2.20E+06	U	04Q412	9978.43	Gamma Spec.
<b>Tl-208</b>									
1/4/2013 12:34:00 PM	-5.71E+01 ± 5.01E+02	aCi/m3	8.42E+02			U	04Q412	9978.43	Gamma Spec.
<b>U-234</b>									
1/4/2013 12:34:00 PM	1.90E+01 ± 7.92E+00	aCi/m3	6.31E+00	1.96E+02	7.70E+03	LT	04Q412	9978.43	Alpha-Spec
<b>U-235</b>									
1/4/2013 12:34:00 PM	9.52E-01 ± 2.71E+00	aCi/m3	4.91E+00	1.25E+01	7.10E+03	U	04Q412	9978.43	Alpha-Spec
<b>U-238</b>									
1/4/2013 12:34:00 PM	2.10E+01 ± 8.22E+00	aCi/m3	5.21E+00	2.19E+02	8.30E+03		04Q412	9978.43	Alpha-Spec