

New Mexico Environment Department DOE Oversight Bureau, Sandia Oversight Office

Third 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 ³	Analytical Method	
KAIR-01 Four Hills									
Ac-228									
9/25/2012 2:00:00 PM	1.76E+03 ± 1.29E+03	aCi/m3	1.99E+03	3.70E+06	U	01Q312	8524.62	Gamma Spec.	
Am-241									
9/25/2012 2:00:00 PM	-1.29E+00 ± 2.70E+00	aCi/m3	6.92E+00	9.44E+00	1.90E+03	U	01Q312	8524.62	Alpha-Spec
Be-7									
9/25/2012 2:00:00 PM	1.17E+05 ± 1.76E+04	aCi/m3	1.41E+04	2.30E+07		01Q312	8524.62	Gamma Spec.	
Bi-212									
9/25/2012 2:00:00 PM	3.99E+03 ± 4.81E+03	aCi/m3	7.74E+03	5.60E+07	U	01Q312	8524.62	Gamma Spec.	
Bi-214									
9/25/2012 2:00:00 PM	1.41E+03 ± 7.16E+02	aCi/m3	1.08E+03	1.40E+08	J,NQ	01Q312	8524.62	Gamma Spec.	
Co-60									
9/25/2012 2:00:00 PM	3.28E+02 ± 3.28E+02	aCi/m3	5.40E+02	1.70E+04	U	01Q312	8524.62	Gamma Spec.	
Cs-134									
9/25/2012 2:00:00 PM	-1.41E+02 ± 3.28E+02	aCi/m3	5.63E+02	2.70E+04	U	01Q312	8524.62	Gamma Spec.	
Cs-137									
9/25/2012 2:00:00 PM	-8.56E+01 ± 3.17E+02	aCi/m3	5.51E+02	1.90E+04	U	01Q312	8524.62	Gamma Spec.	
GROSSA									
9/25/2012 2:00:00 PM	1.52E+03 ± 2.70E+02	aCi/m3	8.21E+01	4.94E+03		01Q312	8524.62	Gas Proportional Cou	
GROSSB									
9/25/2012 2:00:00 PM	2.46E+04 ± 3.99E+03	aCi/m3	1.64E+02	3.53E+04		01Q312	8524.62	Gas Proportional Cou	
I-131									
9/25/2012 2:00:00 PM	-4.93E+03 ± 9.15E+03	aCi/m3	1.52E+04	2.10E+05	U	01Q312	8524.62	Gamma Spec.	
K-40									
9/25/2012 2:00:00 PM	-1.13E+02 ± 1.11E+04	aCi/m3	1.88E+04	2.70E+04	U	01Q312	8524.62	Gamma Spec.	
Na-22									
9/25/2012 2:00:00 PM	-2.58E+01 ± 3.40E+02	aCi/m3	5.87E+02	2.60E+04	U	01Q312	8524.62	Gamma Spec.	
Pa-234M									

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 ³	Analytical Method	
9/25/2012 2:00:00 PM Pb-212	7.27E+04 ± 5.51E+04	aCi/m3	8.56E+04		U	01Q312	8524.62	Gamma Spec.	
9/25/2012 2:00:00 PM Pb-214	-1.29E+02 ± 1.11E+03	aCi/m3	1.88E+03	6.30E+06	U	01Q312	8524.62	Gamma Spec.	
9/25/2012 2:00:00 PM Pu-238	8.09E+02 ± 7.16E+02	aCi/m3	1.16E+03	1.20E+08	U,J	01Q312	8524.62	Gamma Spec.	
9/25/2012 2:00:00 PM Pu-239,240	4.81E-01 ± 2.82E+00	aCi/m3	4.11E+00	6.90E+00	2.10E+03	U	01Q312	8524.62	Alpha-Spec
9/25/2012 2:00:00 PM Th-234	6.92E-01 ± 2.82E+00	aCi/m3	5.63E+00	6.88E+00	2.00E+03	U	01Q312	8524.62	Alpha-Spec
9/25/2012 2:00:00 PM Tl-208	1.07E+04 ± 1.10E+04	aCi/m3	1.99E+04	2.20E+06	U	01Q312	8524.62	Gamma Spec.	
9/25/2012 2:00:00 PM U-234	1.88E+02 ± 3.52E+02	aCi/m3	5.87E+02		U	01Q312	8524.62	Gamma Spec.	
9/25/2012 2:00:00 PM U-235	1.64E+01 ± 7.39E+00	aCi/m3	6.57E+00	2.04E+02	7.70E+03	LT	01Q312	8524.62	Alpha-Spec
9/25/2012 2:00:00 PM U-238	9.85E-01 ± 2.82E+00	aCi/m3	5.16E+00	1.28E+01	7.10E+03	U	01Q312	8524.62	Alpha-Spec
9/25/2012 2:00:00 PM KAIR-02 USGS	1.64E+01 ± 7.16E+00	aCi/m3	4.93E+00	2.28E+02	8.30E+03	LT	01Q312	8524.62	Alpha-Spec
Ac-228									
9/25/2012 2:30:00 PM Am-241	8.29E+01 ± 2.40E+03	aCi/m3	3.96E+03	3.70E+06	U	02Q312	8324.53	Gamma Spec.	
9/25/2012 2:30:00 PM Be-7	-9.73E-02 ± 3.00E+00	aCi/m3	6.85E+00	9.44E+00	1.90E+03	U	02Q312	8324.53	Alpha-Spec
9/25/2012 2:30:00 PM Bi-212	1.11E+05 ± 1.44E+04	aCi/m3	6.13E+03	2.30E+07		02Q312	8324.53	Gamma Spec.	
9/25/2012 2:30:00 PM Bi-214	3.96E+03 ± 4.20E+03	aCi/m3	6.85E+03	5.60E+07	U	02Q312	8324.53	Gamma Spec.	
9/25/2012 2:30:00 PM Co-60	9.61E+01 ± 1.56E+03	aCi/m3	2.64E+03	1.40E+08	U,J	02Q312	8324.53	Gamma Spec.	
9/25/2012 2:30:00 PM Cs-134	-1.08E+02 ± 3.00E+02	aCi/m3	5.29E+02	1.70E+04	U	02Q312	8324.53	Gamma Spec.	
9/25/2012 2:30:00 PM Cs-137	-3.48E+02 ± 3.00E+02	aCi/m3	5.29E+02	2.70E+04	U	02Q312	8324.53	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

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 ³	Analytical Method
9/25/2012 2:30:00 PM	-6.97E-01 ± 3.12E+02	aCi/m3	5.29E+02		1.90E+04	U	02Q312	8324.53	Gamma Spec.
GROSSA									
9/25/2012 2:30:00 PM	1.80E+03 ± 3.12E+02	aCi/m3	1.01E+02	4.94E+03			02Q312	8324.53	Gas Proportional Cou
GROSSB									
9/25/2012 2:30:00 PM	2.28E+04 ± 3.72E+03	aCi/m3	1.68E+02	3.53E+04			02Q312	8324.53	Gas Proportional Cou
I-131									
9/25/2012 2:30:00 PM	-3.12E+03 ± 7.21E+03	aCi/m3	1.20E+04		2.10E+05	U	02Q312	8324.53	Gamma Spec.
K-40									
9/25/2012 2:30:00 PM	-1.32E+03 ± 8.17E+03	aCi/m3	1.32E+04		2.70E+04	U	02Q312	8324.53	Gamma Spec.
Na-22									
9/25/2012 2:30:00 PM	1.44E+02 ± 3.00E+02	aCi/m3	5.05E+02		2.60E+04	U	02Q312	8324.53	Gamma Spec.
Pa-234M									
9/25/2012 2:30:00 PM	3.36E+04 ± 4.81E+04	aCi/m3	7.93E+04			U	02Q312	8324.53	Gamma Spec.
Pb-212									
9/25/2012 2:30:00 PM	7.69E+01 ± 9.73E+02	aCi/m3	1.68E+03		6.30E+06	U	02Q312	8324.53	Gamma Spec.
Pb-214									
9/25/2012 2:30:00 PM	-5.17E+01 ± 1.20E+03	aCi/m3	2.04E+03		1.20E+08	U,J	02Q312	8324.53	Gamma Spec.
Pu-238									
9/25/2012 2:30:00 PM	3.60E+00 ± 3.60E+00	aCi/m3	4.32E+00	6.90E+00	2.10E+03	U	02Q312	8324.53	Alpha-Spec
Pu-239,240									
9/25/2012 2:30:00 PM	3.84E+00 ± 3.48E+00	aCi/m3	2.16E+00	6.88E+00	2.00E+03	LT	02Q312	8324.53	Alpha-Spec
Th-234									
9/25/2012 2:30:00 PM	1.80E+03 ± 1.44E+04	aCi/m3	2.28E+04		2.20E+06	U	02Q312	8324.53	Gamma Spec.
Tl-208									
9/25/2012 2:30:00 PM	2.28E+02 ± 6.73E+02	aCi/m3	1.12E+03			U	02Q312	8324.53	Gamma Spec.
U-234									
9/25/2012 2:30:00 PM	1.32E+01 ± 7.57E+00	aCi/m3	8.53E+00	2.04E+02	7.70E+03	LT	02Q312	8324.53	Alpha-Spec
U-235									
9/25/2012 2:30:00 PM	-4.20E-01 ± 3.48E+00	aCi/m3	7.93E+00	1.28E+01	7.10E+03	U	02Q312	8324.53	Alpha-Spec
U-238									
9/25/2012 2:30:00 PM	1.13E+01 ± 6.37E+00	aCi/m3	2.16E+00	2.28E+02	8.30E+03	LT	02Q312	8324.53	Alpha-Spec
KAIR-03 Southwest Base									
Ac-228									
9/25/2012 2:50:00 PM	2.85E+03 ± 2.06E+03	aCi/m3	3.16E+03		3.70E+06	U	03Q312	6319.95	Gamma Spec.
Am-241									

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

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RADIOLOGICAL PARTICULATES IN AIR at SNL

Avg. Air Volume

	Activity	Units	MDA	UTL 3sd	40CFR61	Lab Qualifier	Sample ID	M ³	Analytical Method
9/25/2012 2:50:00 PM	1.58E+00 ± 4.27E+00	aCi/m3	8.39E+00	9.44E+00	1.90E+03	U	03Q312	6319.95	Alpha-Spec
Be-7									
9/25/2012 2:50:00 PM	1.25E+05 ± 1.74E+04	aCi/m3	1.01E+04		2.30E+07		03Q312	6319.95	Gamma Spec.
Bi-212									
9/25/2012 2:50:00 PM	2.37E+03 ± 7.28E+03	aCi/m3	1.22E+04		5.60E+07	U	03Q312	6319.95	Gamma Spec.
Bi-214									
9/25/2012 2:50:00 PM	-1.16E+03 ± 2.37E+03	aCi/m3	4.11E+03		1.40E+08	U,J	03Q312	6319.95	Gamma Spec.
Co-60									
9/25/2012 2:50:00 PM	-6.33E+01 ± 5.70E+02	aCi/m3	9.81E+02		1.70E+04	U	03Q312	6319.95	Gamma Spec.
Cs-134									
9/25/2012 2:50:00 PM	3.48E+01 ± 5.22E+02	aCi/m3	8.70E+02		2.70E+04	U	03Q312	6319.95	Gamma Spec.
9/25/2012 2:50:00 PM	3.48E+01 ± 5.22E+02	aCi/m3	8.70E+02		2.70E+04	U	03Q312	6319.95	Gamma Spec.
Cs-137									
9/25/2012 2:50:00 PM	-2.06E+02 ± 4.75E+02	aCi/m3	8.39E+02		1.90E+04	U,M	03Q312	6319.95	Gamma Spec.
GROSSA									
9/25/2012 2:50:00 PM	2.22E+03 ± 3.80E+02	aCi/m3	1.27E+02	4.94E+03			03Q312	6319.95	Gas Proportional Cou
GROSSB									
9/25/2012 2:50:00 PM	2.53E+04 ± 3.96E+03	aCi/m3	2.37E+02	3.53E+04			03Q312	6319.95	Gas Proportional Cou
I-131									
9/25/2012 2:50:00 PM	5.85E+02 ± 1.19E+04	aCi/m3	2.06E+04		2.10E+05	U	03Q312	6319.95	Gamma Spec.
K-40									
9/25/2012 2:50:00 PM	-1.49E+02 ± 1.41E+04	aCi/m3	2.37E+04		2.70E+04	U	03Q312	6319.95	Gamma Spec.
9/25/2012 2:50:00 PM	-1.49E+02 ± 1.41E+04	aCi/m3	2.37E+04		2.70E+04	U	03Q312	6319.95	Gamma Spec.
Na-22									
9/25/2012 2:50:00 PM	5.38E+02 ± 5.70E+02	aCi/m3	9.18E+02		2.60E+04	U	03Q312	6319.95	Gamma Spec.
Pa-234M									
9/25/2012 2:50:00 PM	-1.55E+04 ± 1.74E+05	aCi/m3	2.85E+05			U	03Q312	6319.95	Gamma Spec.
Pb-212									
9/25/2012 2:50:00 PM	9.18E+02 ± 7.44E+02	aCi/m3	1.19E+03		6.30E+06	U	03Q312	6319.95	Gamma Spec.
Pb-214									
9/25/2012 2:50:00 PM	-9.49E+02 ± 1.90E+03	aCi/m3	3.16E+03		1.20E+08	U,J	03Q312	6319.95	Gamma Spec.
Pu-238									
9/25/2012 2:50:00 PM	3.80E+00 ± 4.27E+00	aCi/m3	5.85E+00	6.90E+00	2.10E+03	U	03Q312	6319.95	Alpha-Spec
Pu-239,240									
9/25/2012 2:50:00 PM	3.01E-01 ± 3.96E+00	aCi/m3	6.96E+00	6.88E+00	2.00E+03	U	03Q312	6319.95	Alpha-Spec
Th-234									

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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 ³	Analytical Method	
9/25/2012 2:50:00 PM	1.74E+03 ± 1.31E+04	aCi/m3	2.22E+04	2.20E+06	U	03Q312	6319.95	Gamma Spec.	
TI-208									
9/25/2012 2:50:00 PM	4.75E+02 ± 1.03E+03	aCi/m3	1.74E+03		U	03Q312	6319.95	Gamma Spec.	
9/25/2012 2:50:00 PM	4.75E+02 ± 1.03E+03	aCi/m3	1.74E+03		U	03Q312	6319.95	Gamma Spec.	
U-234									
9/25/2012 2:50:00 PM	2.69E+01 ± 1.19E+01	aCi/m3	1.17E+01	2.04E+02	7.70E+03	LT	03Q312	6319.95	Alpha-Spec
U-235									
9/25/2012 2:50:00 PM	3.01E+00 ± 4.27E+00	aCi/m3	6.33E+00	1.28E+01	7.10E+03	U	03Q312	6319.95	Alpha-Spec
U-238									
9/25/2012 2:50:00 PM	2.37E+01 ± 1.08E+01	aCi/m3	8.70E+00	2.28E+02	8.30E+03	LT	03Q312	6319.95	Alpha-Spec
KAIR-04 Mixed Waste Landfill									
Ac-228									
9/25/2012 3:16:00 PM	2.55E+02 ± 1.74E+03	aCi/m3	3.02E+03	3.70E+06	U	04Q312	8612.14	Gamma Spec.	
Am-241									
9/25/2012 3:16:00 PM	3.48E-01 ± 3.02E+00	aCi/m3	6.62E+00	9.44E+00	1.90E+03	U	04Q312	8612.14	Alpha-Spec
Be-7									
9/25/2012 3:16:00 PM	1.14E+05 ± 1.51E+04	aCi/m3	5.46E+03	2.30E+07		04Q312	8612.14	Gamma Spec.	
Bi-212									
9/25/2012 3:16:00 PM	1.16E+03 ± 3.60E+03	aCi/m3	6.04E+03	5.60E+07	U	04Q312	8612.14	Gamma Spec.	
Bi-214									
9/25/2012 3:16:00 PM	1.16E+02 ± 1.16E+03	aCi/m3	1.97E+03	1.40E+08	U,J	04Q312	8612.14	Gamma Spec.	
Co-60									
9/25/2012 3:16:00 PM	-1.39E+02 ± 2.44E+02	aCi/m3	4.41E+02	1.70E+04	U	04Q312	8612.14	Gamma Spec.	
Cs-134									
9/25/2012 3:16:00 PM	-2.55E+02 ± 2.90E+02	aCi/m3	4.99E+02	2.70E+04	U	04Q312	8612.14	Gamma Spec.	
Cs-137									
9/25/2012 3:16:00 PM	6.85E+01 ± 2.67E+02	aCi/m3	4.53E+02	1.90E+04	U	04Q312	8612.14	Gamma Spec.	
GROSSA									
9/25/2012 3:16:00 PM	1.86E+03 ± 3.25E+02	aCi/m3	8.48E+01	4.94E+03		04Q312	8612.14	Gas Proportional Cou	
GROSSB									
9/25/2012 3:16:00 PM	2.21E+04 ± 3.48E+03	aCi/m3	1.63E+02	3.53E+04		04Q312	8612.14	Gas Proportional Cou	
I-131									
9/25/2012 3:16:00 PM	3.83E+02 ± 7.55E+03	aCi/m3	1.28E+04	2.10E+05	U	04Q312	8612.14	Gamma Spec.	
K-40									
9/25/2012 3:16:00 PM	-2.67E+03 ± 8.48E+03	aCi/m3	1.39E+04	2.70E+04	U	04Q312	8612.14	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 ³	Analytical Method	
Na-22									
9/25/2012 3:16:00 PM	-2.32E+02 ± 2.67E+02	aCi/m3	4.76E+02	2.60E+04	U	04Q312	8612.14	Gamma Spec.	
Pa-234M									
9/25/2012 3:16:00 PM	6.27E+04 ± 4.41E+04	aCi/m3	6.97E+04		U	04Q312	8612.14	Gamma Spec.	
Pb-212									
9/25/2012 3:16:00 PM	-1.74E+02 ± 8.82E+02	aCi/m3	1.51E+03	6.30E+06	U	04Q312	8612.14	Gamma Spec.	
Pb-214									
9/25/2012 3:16:00 PM	-1.74E+02 ± 1.16E+03	aCi/m3	1.97E+03	1.20E+08	U,J	04Q312	8612.14	Gamma Spec.	
Pu-238									
9/25/2012 3:16:00 PM	0.00E+00 ± 3.25E+00	aCi/m3	2.44E+00	6.90E+00	2.10E+03	U	04Q312	8612.14	Alpha-Spec
Pu-239,240									
9/25/2012 3:16:00 PM	4.64E+00 ± 4.53E+00	aCi/m3	5.92E+00	6.88E+00	2.00E+03	U	04Q312	8612.14	Alpha-Spec
Th-234									
9/25/2012 3:16:00 PM	7.55E+02 ± 1.39E+04	aCi/m3	2.32E+04	2.20E+06	U	04Q312	8612.14	Gamma Spec.	
Tl-208									
9/25/2012 3:16:00 PM	3.60E+02 ± 2.90E+02	aCi/m3	4.53E+02		U	04Q312	8612.14	Gamma Spec.	
U-234									
9/25/2012 3:16:00 PM	1.63E+01 ± 7.90E+00	aCi/m3	6.97E+00	2.04E+02	7.70E+03	LT	04Q312	8612.14	Alpha-Spec
U-235									
9/25/2012 3:16:00 PM	-6.15E-01 ± 3.14E+00	aCi/m3	5.69E+00	1.28E+01	7.10E+03	U	04Q312	8612.14	Alpha-Spec
U-238									
9/25/2012 3:16:00 PM	1.39E+01 ± 7.32E+00	aCi/m3	7.66E+00	2.28E+02	8.30E+03	LT	04Q312	8612.14	Alpha-Spec