

New Mexico Environment Department DOE Oversight Bureau, Sandia Oversight Office

Second Calendar Quarter 2013

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									
7/2/2013 10:30:00 AM	2.71E+03 ± 7.50E+02	aCi/m3	2.71E+03	3.70E+06	U	01Q213	6265.70	Gamma Spec.	
Am-241									
7/2/2013 10:30:00 AM	-1.60E+00 ± 1.60E+00	aCi/m3	6.70E+00	9.08E+00	1.90E+03	U	01Q213	6265.70	Alpha-Spec
7/2/2013 10:30:00 AM	2.07E+03 ± 2.23E+03	aCi/m3	7.18E+03	1.90E+03	U	01Q213	6265.70	Gamma Spec.	
Be-7									
7/2/2013 10:30:00 AM	2.23E+05 ± 1.37E+04	aCi/m3	8.14E+03	2.30E+07		01Q213	6265.70	Gamma Spec.	
Bi-212									
7/2/2013 10:30:00 AM	-6.22E+02 ± 5.91E+03	aCi/m3	1.92E+04	5.60E+07	U	01Q213	6265.70	Gamma Spec.	
Bi-214									
7/2/2013 10:30:00 AM	1.50E+03 ± 8.62E+02	aCi/m3	3.51E+03	1.40E+08	U,J	01Q213	6265.70	Gamma Spec.	
Co-60									
7/2/2013 10:30:00 AM	8.30E+01 ± 2.23E+02	aCi/m3	7.66E+02	1.70E+04	U	01Q213	6265.70	Gamma Spec.	
Cs-134									
7/2/2013 10:30:00 AM	1.13E+02 ± 2.39E+02	aCi/m3	7.82E+02	2.70E+04	U	01Q213	6265.70	Gamma Spec.	
Cs-137									
7/2/2013 10:30:00 AM	-2.87E+01 ± 2.23E+02	aCi/m3	7.50E+02	1.90E+04	U	01Q213	6265.70	Gamma Spec.	
GROSSA									
7/2/2013 10:30:00 AM	3.51E+03 ± 3.03E+02	aCi/m3	1.60E+02	4.96E+03		01Q213	6265.70	Gas Proportional Cou	
GROSSB									
7/2/2013 10:30:00 AM	3.35E+04 ± 2.71E+03	aCi/m3	1.76E+02	3.78E+04		01Q213	6265.70	Gas Proportional Cou	
I-131									
7/2/2013 10:30:00 AM	1.60E+03 ± 2.87E+03	aCi/m3	9.74E+03	2.10E+05	U	01Q213	6265.70	Gamma Spec.	
K-40									
7/2/2013 10:30:00 AM	5.43E+03 ± 7.50E+03	aCi/m3	2.55E+04	2.70E+04	U	01Q213	6265.70	Gamma Spec.	
Na-22									

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
7/2/2013 10:30:00 AM	1.50E+02 ± 2.23E+02	aCi/m3	7.66E+02		2.60E+04	U	01Q213	6265.70	Gamma Spec.
Pa-234M									
7/2/2013 10:30:00 AM	0.00E+00 ± 3.67E+04	aCi/m3	1.28E+05			U	01Q213	6265.70	Gamma Spec.
Pb-212									
7/2/2013 10:30:00 AM	3.19E+02 ± 6.70E+02	aCi/m3	2.23E+03		6.30E+06	U	01Q213	6265.70	Gamma Spec.
Pb-214									
7/2/2013 10:30:00 AM	1.47E+03 ± 4.95E+02	aCi/m3	1.58E+03		1.20E+08	U,J	01Q213	6265.70	Gamma Spec.
Pu-238									
7/2/2013 10:30:00 AM	-3.99E-01 ± 2.07E+00	aCi/m3	6.06E+00	6.81E+00	2.10E+03	U	01Q213	6265.70	Alpha-Spec
Pu-239,240									
7/2/2013 10:30:00 AM	6.22E+00 ± 2.87E+00	aCi/m3	6.06E+00	7.51E+00	2.00E+03	LT	01Q213	6265.70	Alpha-Spec
Th-234									
7/2/2013 10:30:00 AM	9.10E+03 ± 3.35E+03	aCi/m3	1.09E+04		2.20E+06	U	01Q213	6265.70	Gamma Spec.
Tl-208									
7/2/2013 10:30:00 AM	5.75E+02 ± 4.31E+02	aCi/m3	1.42E+03			U	01Q213	6265.70	Gamma Spec.
U-234									
7/2/2013 10:30:00 AM	8.46E+01 ± 1.17E+01	aCi/m3	1.26E+01	1.86E+02	7.70E+03		01Q213	6265.70	Alpha-Spec
U-235									
7/2/2013 10:30:00 AM	4.31E+00 ± 3.35E+00	aCi/m3	1.29E+01	1.22E+01	7.10E+03	U	01Q213	6265.70	Alpha-Spec
U-238									
7/2/2013 10:30:00 AM	7.02E+01 ± 1.04E+01	aCi/m3	1.23E+01	2.06E+02	8.30E+03		01Q213	6265.70	Alpha-Spec
KAIR-02 USGS									
Ac-228									
7/2/2013 9:16:00 AM	1.56E+03 ± 4.47E+02	aCi/m3	1.68E+03		3.70E+06	U	02Q213	8945.93	Gamma Spec.
Am-241									
7/2/2013 9:16:00 AM	1.05E+00 ± 1.23E+00	aCi/m3	4.47E+00	9.08E+00	1.90E+03	U	02Q213	8945.93	Alpha-Spec
7/2/2013 9:16:00 AM	4.14E+03 ± 3.24E+03	aCi/m3	1.07E+04		1.90E+03	U	02Q213	8945.93	Gamma Spec.
Be-7									
7/2/2013 9:16:00 AM	1.34E+05 ± 8.38E+03	aCi/m3	5.14E+03		2.30E+07		02Q213	8945.93	Gamma Spec.
Bi-212									
7/2/2013 9:16:00 AM	-1.45E+03 ± 3.02E+03	aCi/m3	1.04E+04		5.60E+07	U	02Q213	8945.93	Gamma Spec.
Bi-214									
7/2/2013 9:16:00 AM	1.56E+02 ± 6.37E+02	aCi/m3	2.12E+03		1.40E+08	U,J	02Q213	8945.93	Gamma Spec.
Co-60									
7/2/2013 9:16:00 AM	1.56E+02 ± 1.45E+02	aCi/m3	4.81E+02		1.70E+04	U	02Q213	8945.93	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 Qualifier	Sample ID	M ³	Analytical Method	
Cs-134									
7/2/2013 9:16:00 AM	-1.79E+02 ± 1.45E+02	aCi/m3	4.81E+02	2.70E+04	U	02Q213	8945.93	Gamma Spec.	
Cs-137									
7/2/2013 9:16:00 AM	-1.90E+02 ± 1.45E+02	aCi/m3	5.03E+02	1.90E+04	U	02Q213	8945.93	Gamma Spec.	
GROSSA									
7/2/2013 9:16:00 AM	2.35E+03 ± 2.01E+02	aCi/m3	1.45E+02	4.96E+03		02Q213	8945.93	Gas Proportional Cou	
GROSSB									
7/2/2013 9:16:00 AM	2.12E+04 ± 1.68E+03	aCi/m3	1.23E+02	3.78E+04		02Q213	8945.93	Gas Proportional Cou	
I-131									
7/2/2013 9:16:00 AM	2.01E+03 ± 1.56E+03	aCi/m3	5.25E+03	2.10E+05	U	02Q213	8945.93	Gamma Spec.	
K-40									
7/2/2013 9:16:00 AM	2.91E+03 ± 4.02E+03	aCi/m3	1.34E+04	2.70E+04	U	02Q213	8945.93	Gamma Spec.	
Na-22									
7/2/2013 9:16:00 AM	-1.56E+01 ± 1.45E+02	aCi/m3	4.92E+02	2.60E+04	U	02Q213	8945.93	Gamma Spec.	
Pa-234M									
7/2/2013 9:16:00 AM	2.46E+04 ± 2.24E+04	aCi/m3	7.49E+04		U	02Q213	8945.93	Gamma Spec.	
Pb-212									
7/2/2013 9:16:00 AM	-4.81E+02 ± 4.69E+02	aCi/m3	1.56E+03	6.30E+06	U	02Q213	8945.93	Gamma Spec.	
Pb-214									
7/2/2013 9:16:00 AM	3.47E+02 ± 5.92E+02	aCi/m3	1.90E+03	1.20E+08	U,J	02Q213	8945.93	Gamma Spec.	
Pu-238									
7/2/2013 9:16:00 AM	2.91E+00 ± 1.45E+00	aCi/m3	1.90E+00	6.81E+00	2.10E+03	LT	02Q213	8945.93	Alpha-Spec
Pu-239,240									
7/2/2013 9:16:00 AM	4.02E-01 ± 1.34E+00	aCi/m3	5.92E+00	7.51E+00	2.00E+03	U	02Q213	8945.93	Alpha-Spec
Th-234									
7/2/2013 9:16:00 AM	1.68E+03 ± 6.71E+03	aCi/m3	2.24E+04	2.20E+06	U	02Q213	8945.93	Gamma Spec.	
Tl-208									
7/2/2013 9:16:00 AM	1.23E+02 ± 2.68E+02	aCi/m3	8.72E+02		U	02Q213	8945.93	Gamma Spec.	
U-234									
7/2/2013 9:16:00 AM	2.79E+01 ± 5.48E+00	aCi/m3	1.23E+01	1.86E+02	7.70E+03		02Q213	8945.93	Alpha-Spec
U-235									
7/2/2013 9:16:00 AM	4.14E+00 ± 2.01E+00	aCi/m3	5.14E+00	1.22E+01	7.10E+03	U	02Q213	8945.93	Alpha-Spec
U-238									
7/2/2013 9:16:00 AM	3.35E+01 ± 5.70E+00	aCi/m3	8.16E+00	2.06E+02	8.30E+03		02Q213	8945.93	Alpha-Spec

KAIR-03 Southwest Base

Ac-228

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
7/2/2013 9:38:00 AM	1.69E+03 ± 3.84E+02	aCi/m3	1.58E+03		3.70E+06	NQ	03Q213	8854.66	Gamma Spec.
	Am-241								
7/2/2013 9:38:00 AM	1.10E+00 ± 1.47E+00	aCi/m3	5.20E+00	9.08E+00	1.90E+03	U	03Q213	8854.66	Alpha-Spec
7/2/2013 9:38:00 AM	7.68E+03 ± 4.63E+03	aCi/m3	1.47E+04		1.90E+03	U	03Q213	8854.66	Gamma Spec.
	Be-7								
7/2/2013 9:38:00 AM	1.24E+05 ± 8.02E+03	aCi/m3	4.97E+03		2.30E+07		03Q213	8854.66	Gamma Spec.
	Bi-212								
7/2/2013 9:38:00 AM	2.82E+03 ± 1.81E+03	aCi/m3	5.87E+03		5.60E+07	U	03Q213	8854.66	Gamma Spec.
	Bi-214								
7/2/2013 9:38:00 AM	1.58E+03 ± 2.94E+02	aCi/m3	8.36E+02		1.40E+08	J,NQ	03Q213	8854.66	Gamma Spec.
	Co-60								
7/2/2013 9:38:00 AM	-3.28E+01 ± 1.36E+02	aCi/m3	4.52E+02		1.70E+04	U	03Q213	8854.66	Gamma Spec.
	Cs-134								
7/2/2013 9:38:00 AM	-5.87E+02 ± 1.36E+02	aCi/m3	4.74E+02		2.70E+04	U	03Q213	8854.66	Gamma Spec.
	Cs-137								
7/2/2013 9:38:00 AM	6.78E+01 ± 1.24E+02	aCi/m3	4.40E+02		1.90E+04	U	03Q213	8854.66	Gamma Spec.
	GROSSA								
7/2/2013 9:38:00 AM	2.37E+03 ± 2.03E+02	aCi/m3	1.36E+02	4.96E+03			03Q213	8854.66	Gas Proportional Cou
	GROSSB								
7/2/2013 9:38:00 AM	2.26E+04 ± 1.81E+03	aCi/m3	1.92E+02	3.78E+04		M3	03Q213	8854.66	Gas Proportional Cou
	I-131								
7/2/2013 9:38:00 AM	4.74E+01 ± 1.47E+03	aCi/m3	5.08E+03		2.10E+05	U	03Q213	8854.66	Gamma Spec.
	K-40								
7/2/2013 9:38:00 AM	3.39E+04 ± 2.82E+03	aCi/m3	4.29E+03		2.70E+04	NQ	03Q213	8854.66	Gamma Spec.
	Na-22								
7/2/2013 9:38:00 AM	0.00E+00 ± 1.36E+02	aCi/m3	4.52E+02		2.60E+04	U	03Q213	8854.66	Gamma Spec.
	Pa-234M								
7/2/2013 9:38:00 AM	3.95E+04 ± 2.15E+04	aCi/m3	6.89E+04			U	03Q213	8854.66	Gamma Spec.
	Pb-212								
7/2/2013 9:38:00 AM	1.24E+03 ± 2.48E+02	aCi/m3	7.57E+02		6.30E+06	NQ	03Q213	8854.66	Gamma Spec.
	Pb-214								
7/2/2013 9:38:00 AM	1.03E+03 ± 2.71E+02	aCi/m3	8.36E+02		1.20E+08	J,NQ	03Q213	8854.66	Gamma Spec.
	Pu-238								
7/2/2013 9:38:00 AM	-7.11E-02 ± 1.58E+00	aCi/m3	6.66E+00	6.81E+00	2.10E+03	U	03Q213	8854.66	Alpha-Spec
	Pu-239,240								
7/2/2013 9:38:00 AM	2.26E+00 ± 1.92E+00	aCi/m3	7.34E+00	7.51E+00	2.00E+03	U	03Q213	8854.66	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 ³	Analytical Method	
Th-234									
7/2/2013 9:38:00 AM	1.92E+04 ± 3.50E+03	aCi/m3	1.05E+04	2.20E+06	NQ	03Q213	8854.66	Gamma Spec.	
Tl-208									
7/2/2013 9:38:00 AM	6.10E+02 ± 1.36E+02	aCi/m3	4.07E+02		NQ	03Q213	8854.66	Gamma Spec.	
U-234									
7/2/2013 9:38:00 AM	5.87E+01 ± 8.13E+00	aCi/m3	5.87E+00	1.86E+02	7.70E+03	03Q213	8854.66	Alpha-Spec	
U-235									
7/2/2013 9:38:00 AM	3.05E+00 ± 1.69E+00	aCi/m3	4.52E+00	1.22E+01	7.10E+03	U	03Q213	8854.66	Alpha-Spec
U-238									
7/2/2013 9:38:00 AM	5.76E+01 ± 7.91E+00	aCi/m3	1.92E+00	2.06E+02	8.30E+03	03Q213	8854.66	Alpha-Spec	
KAIR-04 Mixed Waste Landfill									
Ac-228									
7/2/2013 10:08:00 AM	1.24E+03 ± 5.46E+02	aCi/m3	1.75E+03	3.70E+06	U	04Q213	9709.72	Gamma Spec.	
Am-241									
7/2/2013 10:08:00 AM	-1.44E-01 ± 1.13E+00	aCi/m3	4.43E+00	9.08E+00	1.90E+03	U	04Q213	9709.72	Alpha-Spec
7/2/2013 10:08:00 AM	-1.44E-01 ± 1.13E+00	aCi/m3	4.43E+00	9.08E+00	1.90E+03	U	04Q213	9709.72	Alpha-Spec
7/2/2013 10:08:00 AM	3.60E+01 ± 8.24E+02	aCi/m3	2.78E+03	1.90E+03	U	04Q213	9709.72	Gamma Spec.	
7/2/2013 10:08:00 AM	3.60E+01 ± 8.24E+02	aCi/m3	2.78E+03	1.90E+03	U	04Q213	9709.72	Gamma Spec.	
Be-7									
7/2/2013 10:08:00 AM	1.34E+05 ± 8.55E+03	aCi/m3	5.15E+03	2.30E+07		04Q213	9709.72	Gamma Spec.	
Bi-212									
7/2/2013 10:08:00 AM	6.49E+03 ± 2.06E+03	aCi/m3	6.39E+03	5.60E+07	NQ	04Q213	9709.72	Gamma Spec.	
Bi-214									
7/2/2013 10:08:00 AM	1.44E+03 ± 2.99E+02	aCi/m3	9.06E+02	1.40E+08	J,NQ	04Q213	9709.72	Gamma Spec.	
Co-60									
7/2/2013 10:08:00 AM	-7.72E+01 ± 1.54E+02	aCi/m3	5.36E+02	1.70E+04	U	04Q213	9709.72	Gamma Spec.	
Cs-134									
7/2/2013 10:08:00 AM	-3.81E+02 ± 1.34E+02	aCi/m3	4.84E+02	2.70E+04	U	04Q213	9709.72	Gamma Spec.	
Cs-137									
7/2/2013 10:08:00 AM	-1.24E+02 ± 1.34E+02	aCi/m3	4.53E+02	1.90E+04	U	04Q213	9709.72	Gamma Spec.	
GROSSA									
7/2/2013 10:08:00 AM	2.06E+03 ± 1.75E+02	aCi/m3	1.34E+02	4.96E+03		04Q213	9709.72	Gas Proportional Cou	
GROSSB									
7/2/2013 10:08:00 AM	2.06E+04 ± 1.65E+03	aCi/m3	1.13E+02	3.78E+04		04Q213	9709.72	Gas Proportional Cou	
I-131									

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 Qualifier	Sample ID	M ³	Analytical Method
7/2/2013 10:08:00 AM	-1.34E+03 ± 1.44E+03	aCi/m3	5.05E+03		2.10E+05	U	04Q213	9709.72	Gamma Spec.
	K-40								
7/2/2013 10:08:00 AM	1.96E+03 ± 4.12E+03	aCi/m3	1.34E+04		2.70E+04	U	04Q213	9709.72	Gamma Spec.
	Na-22								
7/2/2013 10:08:00 AM	1.13E+01 ± 1.44E+02	aCi/m3	5.05E+02		2.60E+04	U	04Q213	9709.72	Gamma Spec.
	Pa-234M								
7/2/2013 10:08:00 AM	1.03E+04 ± 2.27E+04	aCi/m3	7.72E+04			U	04Q213	9709.72	Gamma Spec.
	Pb-212								
7/2/2013 10:08:00 AM	1.96E+02 ± 3.50E+02	aCi/m3	1.13E+03		6.30E+06	U	04Q213	9709.72	Gamma Spec.
	Pb-214								
7/2/2013 10:08:00 AM	-1.13E+03 ± 6.08E+02	aCi/m3	2.06E+03		1.20E+08	U,J	04Q213	9709.72	Gamma Spec.
	Pu-238								
7/2/2013 10:08:00 AM	1.54E+00 ± 1.13E+00	aCi/m3	3.30E+00	6.81E+00	2.10E+03	U	04Q213	9709.72	Alpha-Spec
	Pu-239,240								
7/2/2013 10:08:00 AM	4.33E+00 ± 1.75E+00	aCi/m3	4.02E+00	7.51E+00	2.00E+03	LT	04Q213	9709.72	Alpha-Spec
	Th-234								
7/2/2013 10:08:00 AM	1.85E+03 ± 3.71E+03	aCi/m3	1.24E+04		2.20E+06	U	04Q213	9709.72	Gamma Spec.
	Tl-208								
7/2/2013 10:08:00 AM	5.66E+02 ± 1.44E+02	aCi/m3	4.33E+02			NQ	04Q213	9709.72	Gamma Spec.
	U-234								
7/2/2013 10:08:00 AM	3.91E+01 ± 6.18E+00	aCi/m3	5.77E+00	1.86E+02	7.70E+03		04Q213	9709.72	Alpha-Spec
	U-235								
7/2/2013 10:08:00 AM	2.37E+00 ± 1.44E+00	aCi/m3	3.30E+00	1.22E+01	7.10E+03	U	04Q213	9709.72	Alpha-Spec
	U-238								
7/2/2013 10:08:00 AM	4.22E+01 ± 6.39E+00	aCi/m3	3.71E+00	2.06E+02	8.30E+03		04Q213	9709.72	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