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ENVIRONMENT DEPARTMENT**

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**Ambient Air Monitoring at the Waste Isolation Pilot Plant Conducted by
NMED/DOE OB for the Second Calendar Quarter 2009**

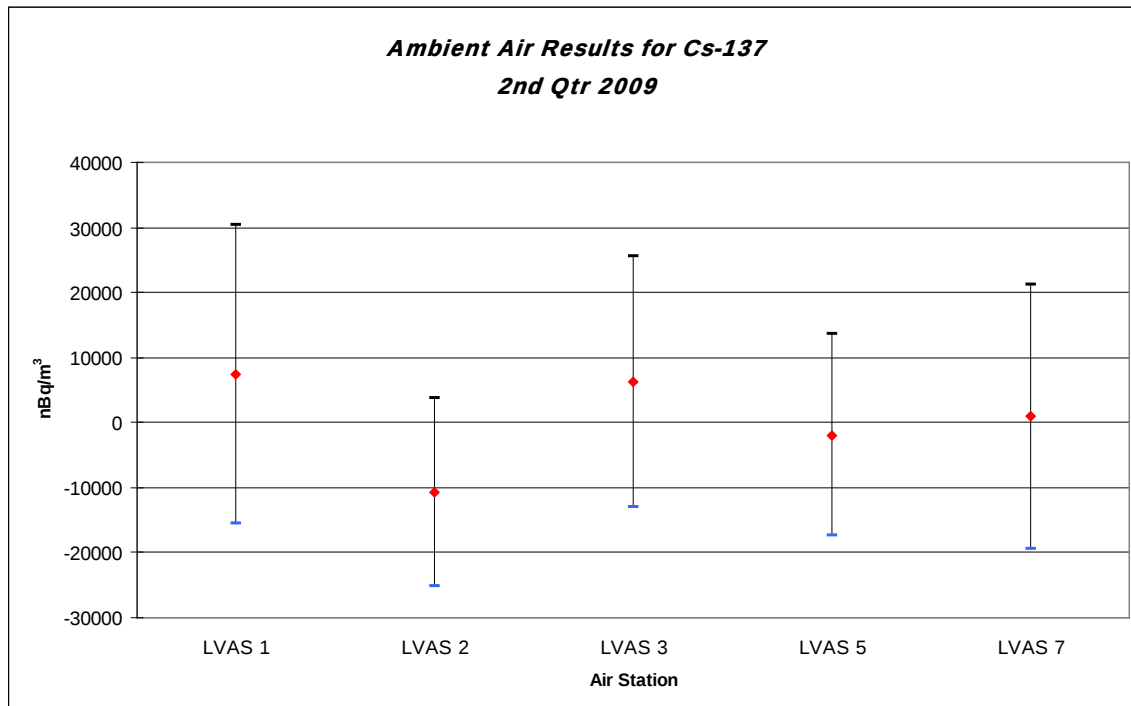
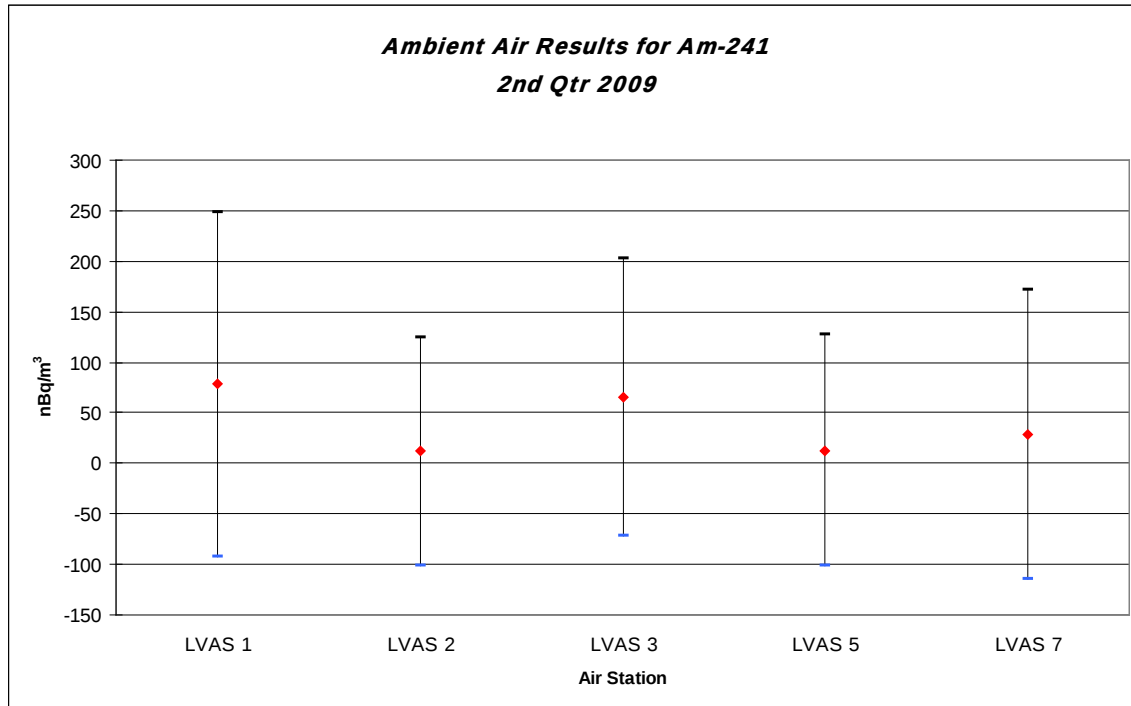
The New Mexico Environment Department (NMED) DOE Oversight Bureau (OB) has compiled and assessed ambient air data collected during the second calendar quarter 2009. The accompanying data report includes results from four low-volume air stations around the WIPP and one at the Oversight Bureau Office in Carlsbad. Air filters from these stations are collected bi-weekly, composited quarterly, and sent to ALS-USA for analysis of Americium-241, Cesium-137, Plutonium-238, Plutonium-239/240, and Strontium-90. All measured values are below both the requested detection limits and the minimum detectable concentrations.

Questions and or comments may be addressed to Julia Marple by phone at (575) 887-6851, by e-mail at julia.marple@state.nm.us or to the address in the above letterhead.

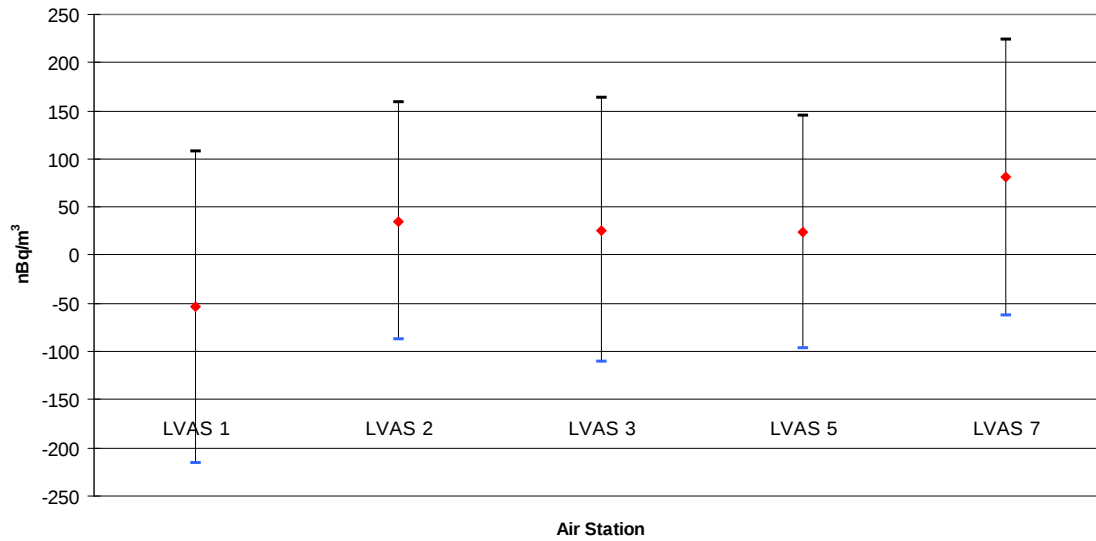
Enclosures: 1. Graphs of Ambient Air Results by Analyte
2. Table of Ambient Air Results by Sampling Location

Distribution: George Basabilvazo, DOE
Dan Ferguson, DOE
Thomas Skibitski, Bureau Chief, DOE OB

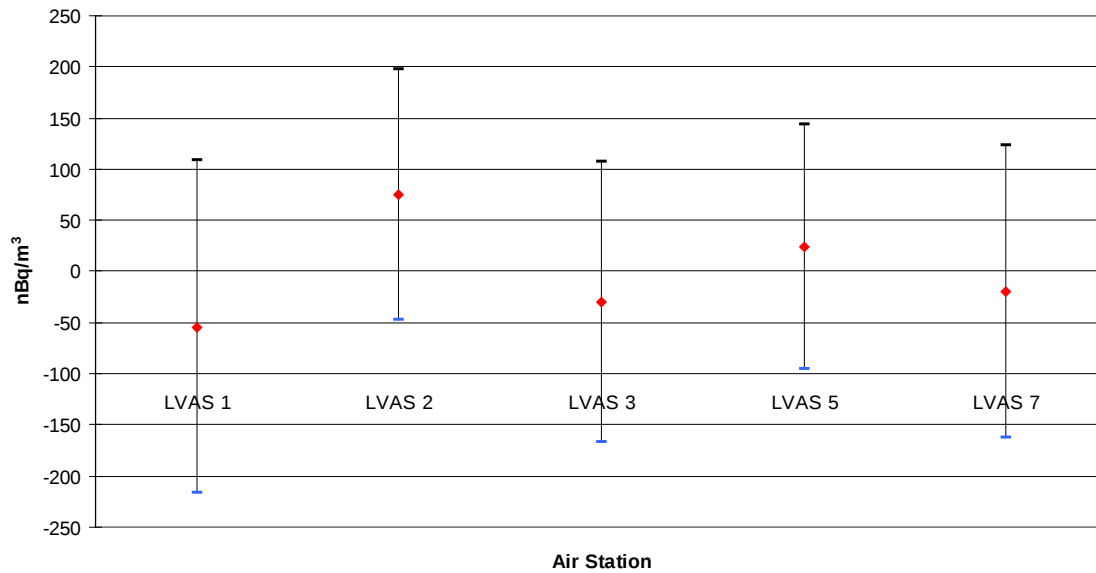
NMED/DOE OB WIPP 2nd Quarter 2009
Graphs of Ambient Air Results by Analyte

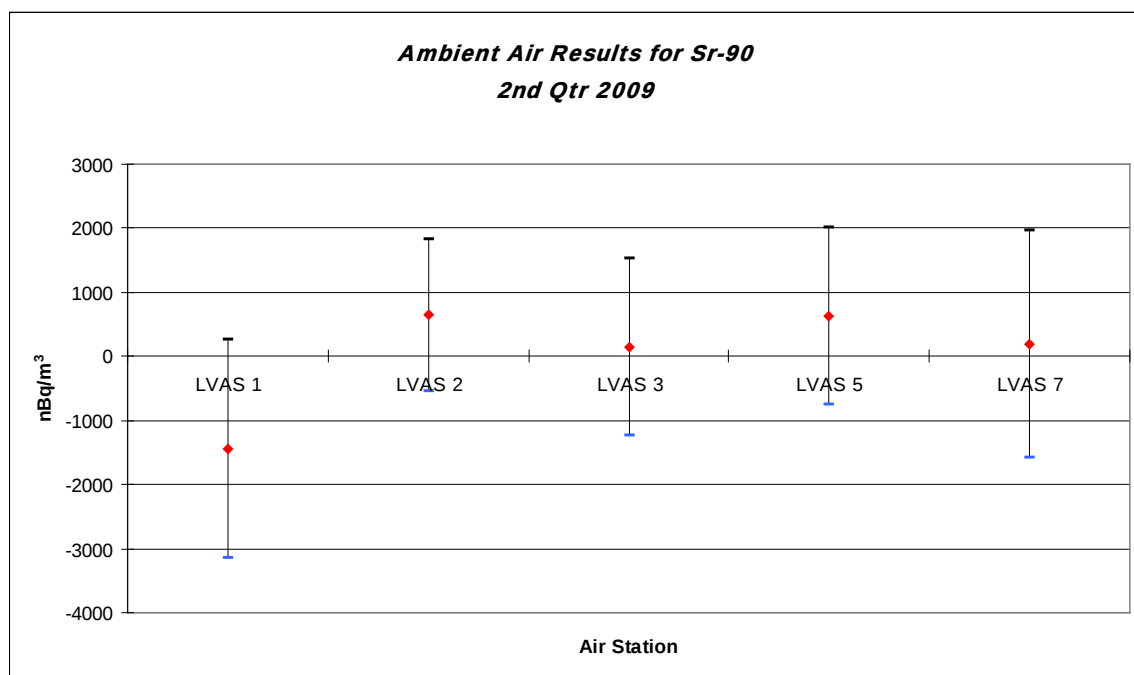


Ambient Air Results for Pu-238
2nd Qtr 2009



Ambient Air Results for Pu-239/240
2nd Qtr 2009





Sampler locations:

LVAS 1	WIPP	Near salt shaft
LVAS 2	Far Field	Immediately northwest of WIPP
LVAS 3	Tower	Immediately northeast of WIPP
LVAS 5	Carlsbad	604 B. North Canal
LVAS 7	Tower	Co-located with LVAS 3

NMED/DOE OB WIPP Second Quarter 2009
Table of Ambient Air Results by Sampling Location

<i>LVAS 1 WIPP</i>					<i>Data Summaries</i>	
Analyte	pCi/composite		MDC	Lab Flag	nBq/m3	
	Result	±2 s TPU			Result	Uncertainty (±2 s TPU)
Sr 90	-0.17	0.20	0.48	U	-1446	1701
Pu-239/40	-0.0064	0.019	0.042	U	-54	162
Pu-238	-0.0064	0.019	0.042	U	-54	162
Am 241	0.0092	0.020	0.028	U	78	170
Cs 137	0.86	2.7	4.5	U	7315	22970
(m3)						
Total Air Flow		4350				

<i>LVAS 2 Far field</i>					<i>Data Summaries</i>	
Analyte	pCi/composite		MDC	Lab Flag	nBq/m3	
	Result	±2 s TPU			Result	Uncertainty (±2 s TPU)
Sr 90	0.12	0.22	0.48	U	643	1180
Pu-239/40	0.014	0.023	0.046	U	75	123
Pu-238	0.0065	0.023	0.018	U	35	123
Am 241	0.0023	0.021	0.036	U	12	113
Cs 137	-2.0	2.7	4.6	U	-10720	14480
(m3)						
Total Air Flow		6900				

<i>LVAS 3 Tower</i>					<i>Data Summaries</i>	
Analyte	pCi/composite		MDC	Lab Flag	nBq/m ³	
	Result	±2 s TPU			Result	Uncertainty (±2 s TPU)
Sr 90	0.021	0.20	0.46	U	144	1373
Pu-239/40	-0.0044	0.020	0.049	U	-30	137
Pu-238	0.0038	0.020	0.029	U	26	137
Am 241	0.0095	0.020	0.029	U	65	137
Cs 137	0.91	2.8	4.8	U	6247	19220
(m3)						
Total Air Flow		5390				

<i>LVAS 5 Carlsbad</i>					<i>Data Summaries</i>	
Analyte	pCi/composite		MDC	Lab Flag	nBq/m ³	
	Result	±2 s TPU			Result	Uncertainty (±2 s TPU)
Sr 90	0.11	0.24	0.53	U	631	1377
Pu-239/40	0.0041	0.021	0.030	U	24	120
Pu-238	0.0041	0.021	0.031	U	24	120
Am 241	0.0022	0.020	0.035	U	13	115
Cs 137	-0.34	2.7	4.5	U	-1950	15490
(m3)						
Total Air Flow		6450				

<i>LVAS 7 Tower duplicate</i>					<i>Data Summaries</i>	
Analyte	pCi/composite		MDC	Lab Flag	nBq/m ³	
	Result	±2 s TPU			Result	Uncertainty (±2 s TPU)
Sr 90	0.028	0.26	0.60	U	190	1765
Pu-239/40	-0.0029	0.021	0.049	U	-20	143
Pu-238	0.012	0.021	0.016	U	81	143
Am 241	0.0041	0.021	0.031	U	28	143
Cs 137	0.13	3.0	5.0	U,M	883	20370
(m3)						
Total Air Flow		5450				

Qualifiers/Flags

U – Result is less than the sample specific MDC
M - The requested MDC was not met.

Abbreviations

TPU - Total Propagated Uncertainty
MDC – Minimum Detectable Concentration